ORDER NO. VMD9803013C2

# Service Manual

**General Description**
**Adjustment Procedures**
**Block / Schematic Diagrams**
**Exploded Views / Parts List**

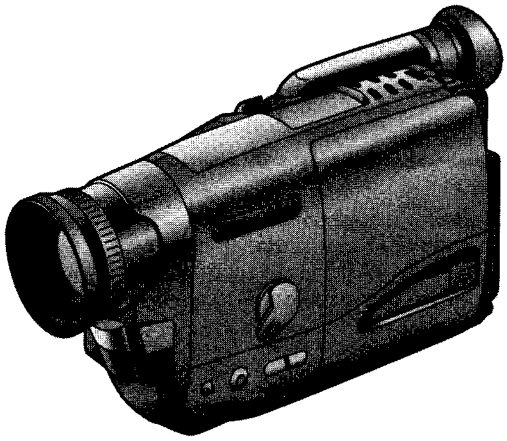
**Panasonic** VHS C PAL

**HQ**

VHS-C Movie

# NV-RX61B
# NV-RX66EG

**DL-MECHANISM**



## SPECIFICATIONS

| ITEM | SPECIFICATION |
|---|---|
| POWER | Source: Battery Pack; 4.8 V DC<br>AC Adaptor; 6.0 V DC<br>Consumption; 5.6 W (Battery operation) |
| VIDEO RECORDING SYSTEM | 4 rotary heads, helical scanning system PAL |
| TAPE FORMAT | VHS-C Cassette Tape (Tape width 12.7 mm) |
| TAPE SPEED | SP mode: 23.39 mm/s<br>LP mode: 11.7 mm/s (Except NV-RX66EG)<br>Record/Playback Time:<br>SP mode: 45 min. with NV-EC45XG<br>LP mode: 90 min. with NV-EC45XG (Except NV-RX66EG)<br>FF/REW Time:<br>less than 6.5 min. with NV-EC45XG |
| CAMERA | PICK-UP ELEMENT:<br>CCD (Charge Coupled Device) |
| | STANDARD ILLUMINATION: 1,400 lux |
| | MINIMUM REQUIRED ILLUMINATION:<br>1.5 Lux (Low Light Mode) |
| | LENS: 21 : 1 Wide-angle Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.6 (3.8~79.8 mm), Filter Diameter 43 mm |
| | IMAGE SENSOR: 1/4 inch CCD Image Sensor |
| | VIEWFINDER: 0.5 inch Electronic Viewfinder |

| ITEM | SPECIFICATION |
|---|---|
| VIDEO | HEADS: 4 Rotary heads, 1 flying erase head |
| | OUTPUT: PHONO CONNECTOR;<br>1.0 Vp-p 75Ω unbalanced |
| AUDIO | HEAD: 1 Stationary head (Normal-Mono) |
| | OUTPUT: PHONO CONNECTOR;<br>−6 dB, 47 kΩ loaded/less than 1 kΩ<br>INPUT: MIC IN;<br>−70 dB, 4.7 kΩ or more unbalanced |
| OPERATING TEMPERATURE | 0~40℃ |
| OPERATING HUMIDITY | 10~80% |
| WEIGHT | Approx. 730 g (without Battery Pack) |
| DIMENSIONS | 94 (W)×126 (H)×266 (D) mm |
| STANDARD ACCESSORIES | 1 pc. AC Adaptor<br>1 pc. Battery Pack<br>1 pc. Cassette Adaptor (for NV-RX66EG)<br>1 pc. Shoulder Strap<br>1 pc. DC Output Cable<br>1 pc. Battery for Cassette Adaptor Operation (for NV-RX66EG)<br>1 pc. AC Cord<br>1 pc. AV Cord<br>1 pc. 21 pin Adaptor (for NV-RX66EG)<br>1 pc. Remote Controller<br>1 pc. Remote Controller Holder<br>1 pc. Battery Cover |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

**Panasonic**

© 1998 Matsushita Electric Industrial Co., Ltd.
All rights reserved. Unauthorized copying and distribution is a violation of law.

⚠ **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

# INTRODUCTION 1

This service manual contains technical information which will allow service personnel's to understand and service this model.

Section 1 Presents you with some general information of features and controls,
enabling you to brcome familiar with each function.
Section 2 Contributes to your electrical adjustment as well disassemble
and replacement procedures.
Section 3 Contain block diagrams which offers you information for checking
and understanding each circuit.
Schematic diagrams which give you detailed information such as waveforms,
voltage data, function e.t.c..
Section 4 Contain exploded views and parts list.

Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

Note 1 :Adjustment procedure for Mechanism-Chassis is separate volume.
Please refer to following manual for detail of adjustment procedure for Mechanism-Chassis.
**Order number for adjustment procedure of Mechanism-Chassis : VMD9412M130**

Note 2 : Thses movie camera uses AC Adaptor VSK0317D
The Service manual for AC Adaptor is separate volume.
**Order number for AC Adaptor-----VSK0317D :VMD9412M130**

# CONTENTS

SERVICE CAUTION

SECTION 1 GENERAL DESCRIPTONS ........ 1-1

SECTION 2 ADJUSTMENT PROCEDURES ........ 2-1

2-1. DISASSEMBLY PROCEDURES ........ 2-1

2-2. DISASSEMBLY PROCEDURES OF LENS UNIT ........ 2-4

2-3. ELECTRICAL ADJUSTMENT PROCEDURES FOR E.V.F. SECTION ........ 2-5

SECTION 3 BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS ........ 3-1

3-2. CAMERA BLOCK DIAGRAM ........ 3-3

3-3. LENS DRIVE BLOCK DIAGRAM ........ 3-6

3-4. LUMINANCE/CHROMINANCE/HEAD AMP BLOCK DIAGRAM ........ 3-8

3-5. SYSTEM CONTROL & SERVO BLOCK DIAGRAM ........ 3-10

3-6. POWER BLOCK DIAGRAM ........ 3-14

3-7. EVF SCHEMATIC DIAGRAM ........ 3-16

3-8. EVF C.B.A. ........ 3-16

3-9. CAMERA SCHEMATIC DIAGRAM ........ 3-18

3-10. LENS DRIVE SCHEMATIC DIAGRAM ........ 3-22

3-11. SUB SERVO SCHEMATIC DIAGRAM ........ 3-24

3-12. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM ........ 3-26

3-13. POWER SCHEMATIC DIAGRAM ........ 3-32

3-14. LUMINANCE/CHROMINANCE/HEAD AMP & AUDIO SCHEMATIC DIAGRAM ........ 3-34

3-15. CAMERA/MAIN [Camera, Lens Drive, Sub Servo, System Control & Servo, Power, Luminance/Chrominance/Head Amp & Audio Sections] C.B.A. ........ 3-38

3-16. MIC UNIT/MF RING UNIT SCHEMATIC DIAGRAM ........ 3-46

3-17. MIC UNIT ........ 3-47

3-18. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM ........ 3-48

3-19. CCD FLEXIBLE CARD C.B.A. ........ 3-48

SECTION 4 EXPLODED VIEWS & PARTS LIST ........ 4-1

4-1. EXPLODED VIEWS & MECHANICAL REPLACEMENT PARTS LIST ........ 4-1
   1. VTR MECHANISM SECTION (1) ........ 4-1
   2. VTR MECHANISM SECTION (2) ........ 4-3
   3. VTR MECHANISM SECTION (3) ........ 4-4
   4. CAMERA LENS SECTION ........ 4-5
   5. FRAME & CASING PARTS SECTION ........ 4-6
   6. PACKING PARTS & ACCESSORIES SECTION ........ 4-8

4-2. ELECTRICAL REPLACEMENT PARTS LIST ........ 4-10

# SERVICE CAUTION

## 1. SERVICE EXTENSION CABLES.

This model is required the following extention cables for all connections.
And for more convenient service, prepare the S/S, ZOOM, OP. U. (VXU1488) and the CAM/VTR OP. U. (VXU1491) through a spare parts route.

1-1. In case of Flat cables.

Use the following extension cables when checking or adjusting individual circuit boards.

| Ref. | Part. No. | Pin | Part name | Connection | Q'ty | Remarks |
|---|---|---|---|---|---|---|
| (a) | VFK0670 | 18 | Flat Cable | FP6001-Mech. Chassis | 1 | |
| (b) | VFK0670 | 18 | Flat Cable | FP2002-Capstan Motor | 1 | |
| (c) | VFK0978 | 6 | Flat Cable | FP6002-Mech. Chassis | 1 | |
| (d) | VFK0929 | 12 | Flat Cable | PP301-CCD | 1 | |
| (e) | VFK0980 | 9 | Flat Cable | FP4001-A/C HEAD | 1 | |
| (f) | VFK0913 | 18 | Flat Cable | FP701-LENS UNIT | 1 | |
| (g) | VFKW0F0139 | 7 | Attachment Connector | FP2001-CYLINDER | 1 | Included in Tatsujin-Kit |
| | VFKW0F0140 | 7 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |

How to use extension cables.

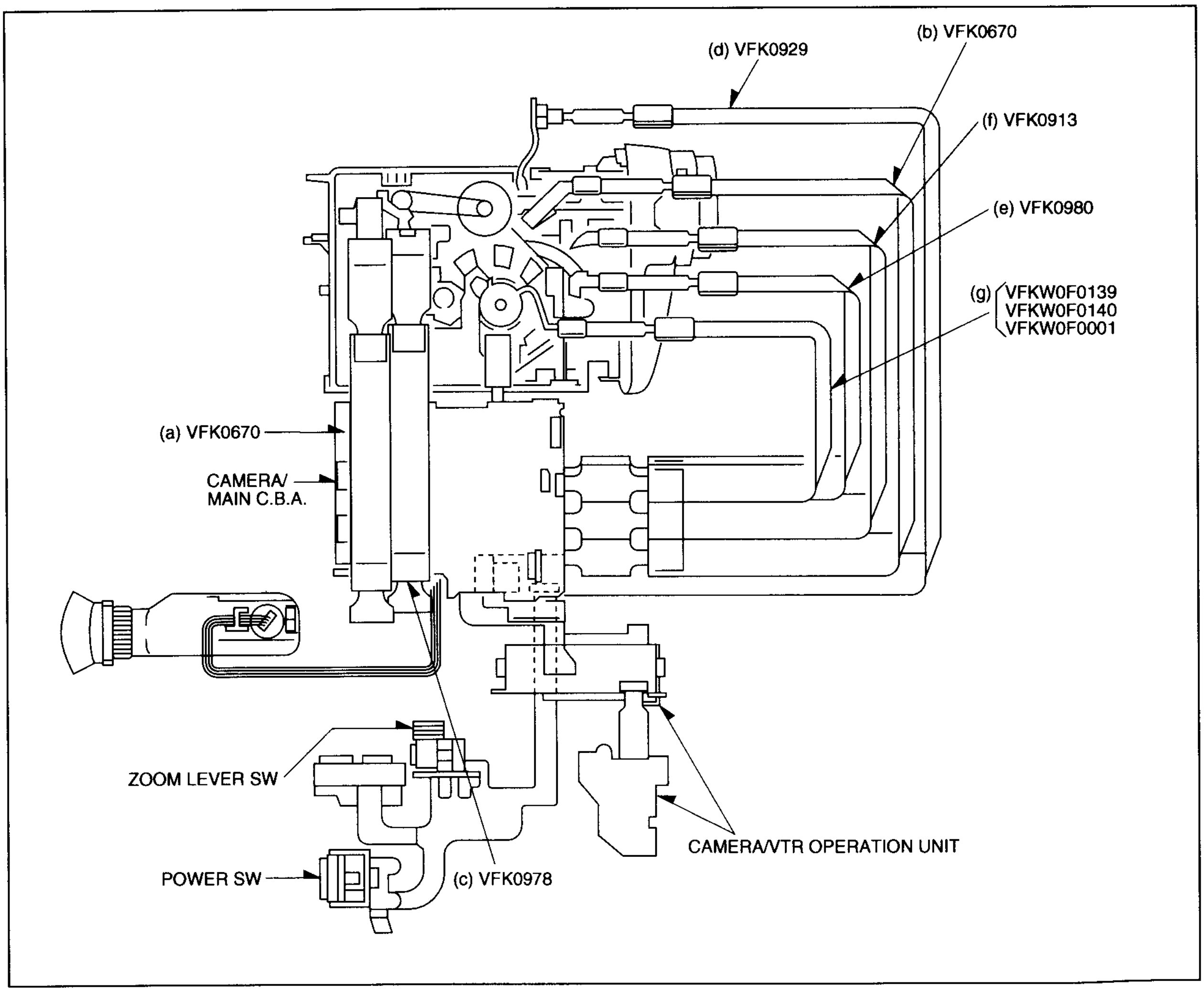

(b) VFK0670
(d) VFK0929
(f) VFK0913
(e) VFK0980
(g) VFKW0F0139
VFKW0F0140
VFKW0F0001
(a) VFK0670
CAMERA/
MAIN C.B.A.
ZOOM LEVER SW
POWER SW
(c) VFK0978
CAMERA/VTR OPERATION UNIT

Fig. T1

## 1-2. In case of Tatsujin Cable.

Use the following extension cables when checking or adjusting individual circuit boards.

| Ref. | Part. No. | Pin | Part name | Connection | Q'ty | Remarks |
|---|---|---|---|---|---|---|
| (a) | VFKW0F0033 | 18 | Attachment Connector | FP6001-Mech. Chassis | 1 | Included in Tatsujin-Kit |
| | VFKW0F0055 | 18 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (b) | VFKW0F0033 | 18 | Attachment Connector | FP2002-Capstan Motor | 1 | |
| | VFKW0F0055 | 18 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (c) | VFKW0F0128 | 6 | Attachment Connector | FP6002-Mech. Chassis | 1 | |
| | VFKW0F0127 | 6 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (d) | VFKW0F0118 | 12 | Attachment Connector | PP301-CCD | 1 | |
| | VFKW0F0117 | 12 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (e) | VFKW0F0132 | 9 | Attachment Connector | FP4001-A/C HEAD | 1 | |
| | VFKW0F0131 | 9 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (f) | VFKW0F0111 | 18 | Attachment Connector | FP701-LENS UNIT | 1 | |
| | VFKW0F0112 | 18 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (g) | VFKW0F0139 | 7 | Attachment Connector | FP2001-CYLINDER | 1 | |
| | VFKW0F0140 | 7 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |

How to use extension cables.

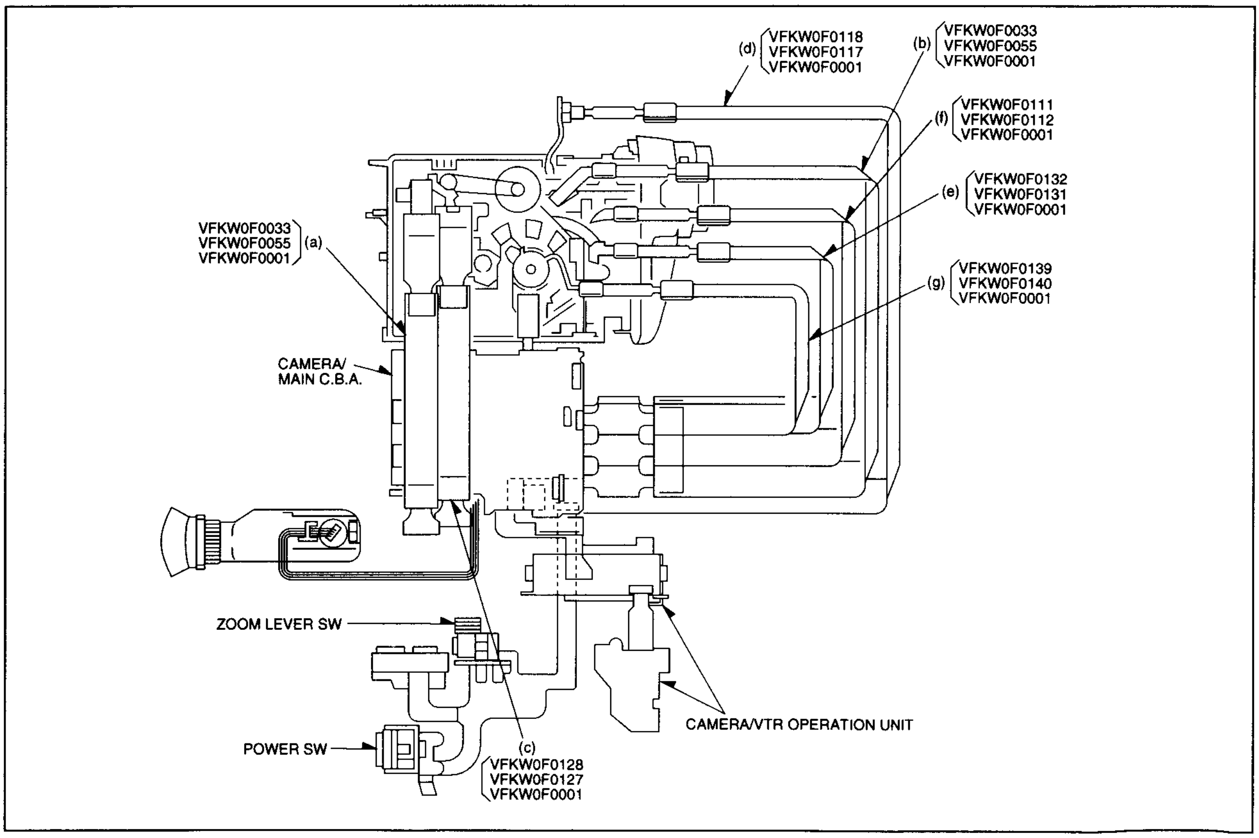

(d) VFKW0F0118
VFKW0F0117
VFKW0F0001
(b) VFKW0F0033
VFKW0F0055
VFKW0F0001
(f) VFKW0F0111
VFKW0F0112
VFKW0F0001
(e) VFKW0F0132
VFKW0F0131
VFKW0F0001
(a) VFKW0F0033
VFKW0F0055
VFKW0F0001
(g) VFKW0F0139
VFKW0F0140
VFKW0F0001
CAMERA/ MAIN C.B.A.
ZOOM LEVER SW
CAMERA/VTR OPERATION UNIT
POWER SW
(c) VFKW0F0128
VFKW0F0127
VFKW0F0001

Fig. T2

1-3. Service Position for Movement of Mechanism.

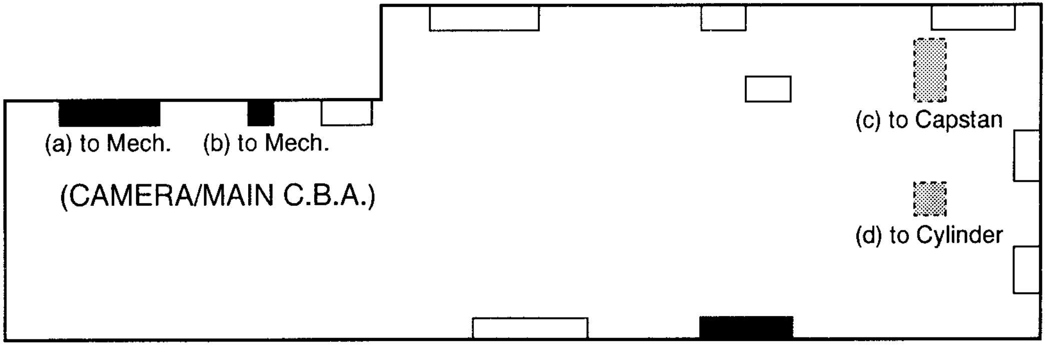
Use the following extension cables when checking the Mechanism.

| Ref. | Part. No. | Pin | Part name | Connection | Q'ty | Remarks |
|---|---|---|---|---|---|---|
| (a) | VFK0670 | 18 | Flat Cable | FP6001-Mech. Chassis | 1 | |
| (b) | VFK0978 | 6 | Flat Cable | FP6002-Mech. Chassis | 1 | |
| (c) | VFK0670 | 18 | Flat Cable | FP2002-Capstan Motor | 1 | |
| (d) | VFKW0F0139 | 7 | Attachment Connector | FP2001-CYLINDER | 1 | Included in Tatsujin-Kit |
| | VFKW0F0140 | 7 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |

In case of Tatsujin Cable.

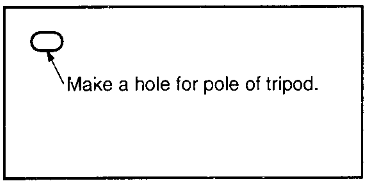
| Ref. | Part. No. | Pin | Part name | Connection | Q'ty | Remarks |
|---|---|---|---|---|---|---|
| (a) | VFKW0F0033 | 18 | Attachment Connector | FP6001-Mech. Chassis | 1 | Included in Tatsujin-Kit |
| | VFKW0F0055 | 18 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (b) | VFKW0F0128 | 6 | Attachment Connector | FP6002-Mech. Chassis | 1 | |
| | VFKW0F0127 | 6 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (c) | VFKW0F0033 | 18 | Attachment Connector | FP2002-Capstan Motor | 1 | |
| | VFKW0F0055 | 18 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |
| (d) | VFKW0F0139 | 7 | Attachment Connector | FP2001-CYLINDER | 1 | |
| | VFKW0F0140 | 7 | Attachment Connector | | 1 | |
| | VFKW0F0001 | 28 | Common Cable | | 1 | |

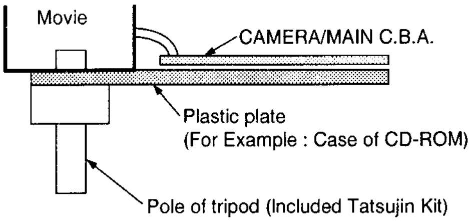
Service position for Movement of Mechanism.

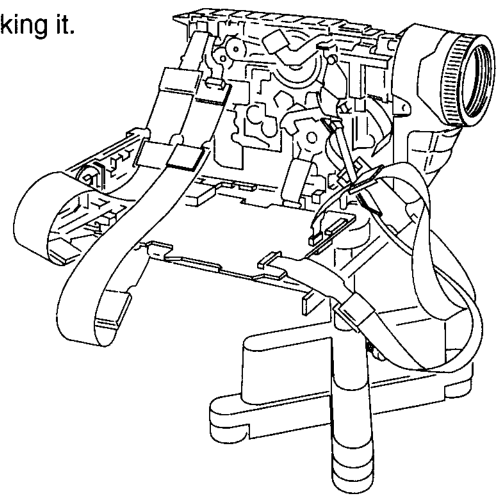

(a) to Mech.
(b) to Mech.
(CAMERA/MAIN C.B.A.)
(c) to Capstan
(d) to Cylinder

## 2. SERVICE POSITION OF CAMERA/MAIN C.B.A.

Please prepare the following plastic plate to hold C.B.A. during checking it.

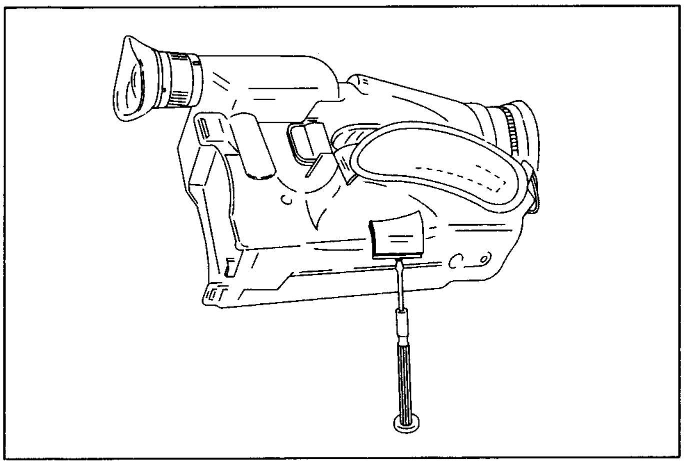

Make a hole for pole of tripod.


Movie
CAMERA/MAIN C.B.A.
Plastic plate
(For Example : Case of CD-ROM)
Pole of tripod (Included Tatsujin Kit)



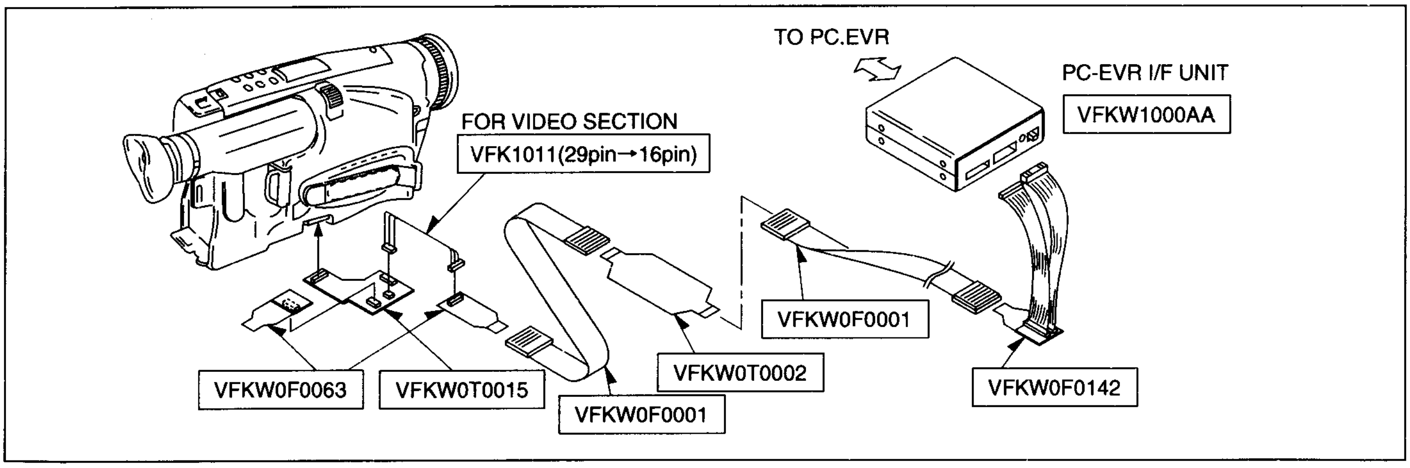
## 3. SET-UP FOR ADJUSTMENT OF TATSUJIN.

For adjustments with Tatsujin, it is not necessary to open the side case.
Just open the small cover on the side case left by a small screwdriver.



- Insert a small screwdriver to small hole on side case (L) and prize off the cover.
  (Be carefully for prevention of scratch on case)

And insert the Extension Board and connect Tatsujin cable as follows.



# The Built-in Lithium Battery

### Charging the Built-in Lithium Battery

The internal clock works even when the Movie Camera is turned off, and it consumes power from the built-in lithium battery. When the Movie Camera is in operation, it automatically charges this battery. However, if the Movie Camera is not used for a very long time, the lithium battery can become discharged. This has occurred if the [⊗] Indication in the Finder flashes when you turn on the Movie Camera. In this case, perform the following operations.

### ■Charging the Built-in Lithium Battery and Other Required Operations

1. **Connect the AC Adaptor to the mains and to the Movie Camera.**
2. **Leave the Movie Camera turned off.**
   - Although charging the lithium battery is possible with the Movie Camera turned on or off, we recommend to keep it turned off to conserve energy.
3. **Leave the Movie Camera in this condition for approximately 4 hours.**
   - Charging the lithium battery in this way for 4 hours maintains the clock operation for approximately 1 month, charging for 26 hours (full charge) maintains it for approximately 1 year.
4. **Set the clock to the current date and time.**

# HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURE)

1. Remove the Rear Case Unit.
   (Remove the 1 Screw from Rear Frame)
2. Remove the Lithium Battery "ML2020" and then replace the new one. (See Fig. B1)

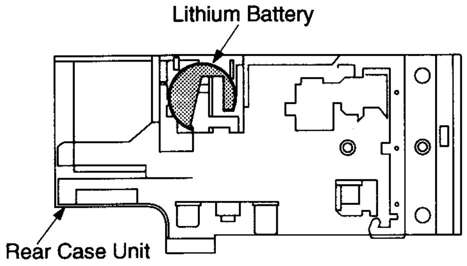


**Fig. B1**

NOTE:

The lithium battery is a critical component (Type No.: ML2020 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

# SERVICE INFORMATION

## 1. SERVICE INFORMATION DISPLAY

General Description
This Movie Camera has SERVICE INFORMATION DISPLAY function which facilitates quick trouble-shooting.
You can turn on the Service Information Display, by performing the following procedures.
This causes the Service Informatin to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewed on the TV.

| MODE NAME | FUNCTION | How to turn it ON.<br>(Push following keys simultaneously for at least 2 sec.) | | |
|---|---|---|---|---|
| OSD Line Output MODE | • Checking the EVF information on the TV monitor. | DATE/TIME SET (TOP PANEL) | RESET (TOP PANEL) | DATE/ TITLE (TOP PANEL) |

| MODE NAME | FUNCTION | How to turn it ON.<br>(Push following keys simultaneously for at least 2 sec.) | | |
|---|---|---|---|---|
| SERVICE MODE 1 | • Remaining Battery A/D Value<br>• Safety Device<br>• Capstan/Cylinder injuctions | DATE/TIME SHIFT (TOP PANEL) | RESET (TOP PANEL) | DATE/ TITLE (TOP PANEL) |

| MODE NAME | FUNCTION | How to turn it ON.<br>(After chosing SERVICE MODE 1, Push [DATE/TIME] key. (TOP PANEL) |
|---|---|---|
| SERVICE MODE 2 | • Reference Voltage A/D Value<br>• Machanism position<br>• Serial key code | DATE/ TITLE |

| MODE NAME | FUNCTION | How to turn it ON.<br>(After chosing SERVICE MODE 2, Push [DATE/TIME] key. (TOP PANEL) |
|---|---|---|
| SERVICE MODE 3 | • ERROR CODE Display | DATE/ TITLE |

| MODE NAME | FUNCTION | How to turn it ON.<br>(After chosing SERVICE MODE 3, Push [DATE/TIME] key. (TOP PANEL) |
|---|---|---|
| SERVICE MODE 4 | • PG SHIFTER ADJUSTMENT | DATE/ TITLE |

### ERROR CODE DISPLAY

When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF, Aloso the CAMERA LED will flash for a short time, then the power will be turned off.
By turning on Service Mode 3, you can check to see what kind of undesirable condition occured, even after the ERROR CODE has disappeared. (To perform the Service Mode 3, do not disconnect the AC adaptor or battery pack, after undesiable condition occured.)
To clear the ERROR CODE, disconnect the AC Main Lead or the battery has been disconnected.

This movie camera has the built in Rechargeable Lithum Battery.
It maintain the operation of the built-in clock and error code for the Service Mode when the Movie camera turn off.
To clear the error code, make shoot the IC6001 pin 25 to GND for reset the IC6001.
Indication for built in clock return to initial condition make reset the IC6001.

NOTE 1: Contents of all Service Mode (Service Mode 1~Service Mode 4) same as privious models.
So we will issure Technical Information for Service Mode.
Order Number for this document is as follows.
Order Number for Technical Information : VMD9512M138

NOTE 2: Contents of all Service Mode (Service Mode 1~Service Mode 4) same as privious models.
We will issure Technical Information for Service Mode.
But Service Mode 3 is Error code Display. It is important for Service.
So this service manual contain for this information.

## SERVICE MODE 3

After undesirable conditions occured, you can see what kind of error occured by turning on the Service Mode 3.
When you turn on the service mode 3, the error code is displayed on E.V.F.
Also the Camera LED is flashed according to Error code.

Display: (Example)

(SERVICE MODE 3)

F 05

F 05 — * Detected the Cylinder lock

Display position: (See Fig. 1)

0 : 0 0 . 0 0 (The position of linear time counter)

- 0 0 (last) — Blank (No display)
- 0 0 — 01~05, 10~11, 51, 52
- 0 — F or U

| DISPLAY | CONDITION | The Power off timing |
|---|---|---|
| F01 | T-REEL LOCK | After 1 minute (flashing the LED) |
| F02 | S-REEL LOCK | |
| F03 | UNLOADING LOCK | |
| F04 | LOADING LOCK | |
| F05 | CYLINDER LOCK | |
| F51 | FOCUS MOTOR LOCK | ------------ |
| F52 | ZOOM MOTOR LOCK | |
| U10 | DEW DETECTION | After 18 minutes (flashing the LED) |
| U20 | HEAD CLOGGING | Not turning off |

**Fig. I Error Code**

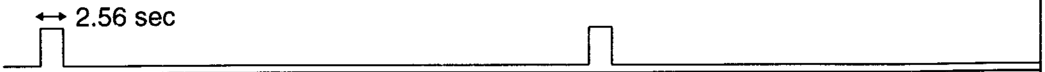
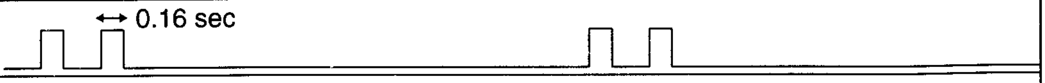
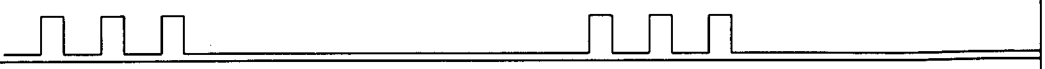
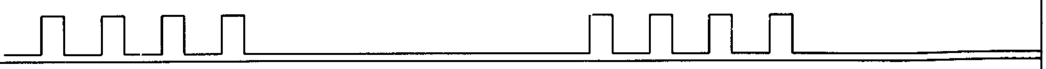
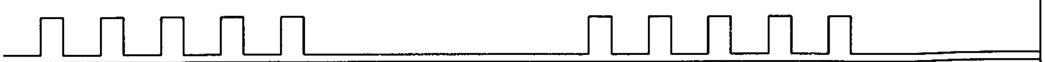
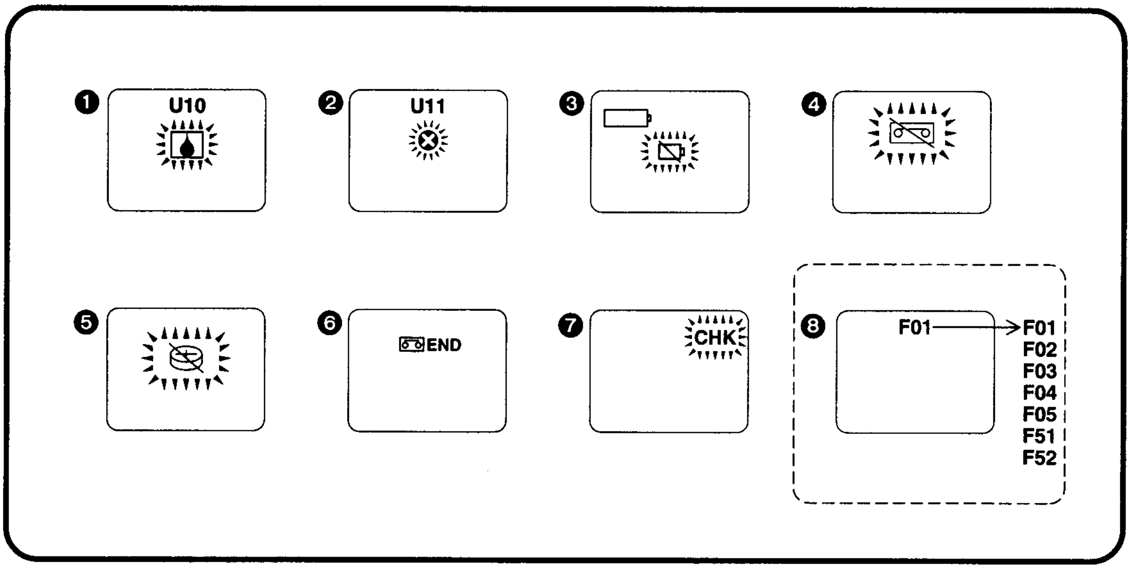
| Lock Condition | Power LED Flashing Timing |
|---|---|
| T-REEL LOCK<br>(F01) |  |
| S-REEL LOCK<br>(F02) |  |
| UNLOADING LOCK<br>(F03) |  |
| LOADING LOCK<br>(F04) |  |
| CYLINDER LOCK<br>(F05) |  |
| OTHERS<br>(U10 & U11) | Power LED is flashed at 1 Hz timing |

**Fig. J LED Flashing Timing**

# SECTION 1
# GENERAL DESCRIPTIONS



## *Indications*

### ■ Warning/Alarm Indications

**❶ Condensation**

**❷ Video Head Clogging**

**❸ Remaining Battery Power**

When the last segment of this indication has disappeared, the Movie Camera automatically switches off. Replace the Battery with a fully charged one.

**❹ Cassette**

No cassette is inserted. Or the tab of the inserted cassette is broken out. Insert a cassette with an intact tab.

**❺ Built-in Lithium Battery**

The built-in Lithium Battery is exhausted. Charge it.

**❻ End of the Tape**

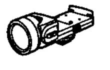
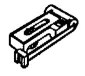
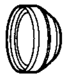
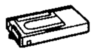
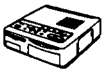
When the tape has reached its end, this indication appears. Insert a new cassette.

**❼ Anti-Ground Recording**

**❽ Error Code**

(Error codes are information for service personnel.)
If the [F] Indication with a 2-digit number appears, a malfunction has occurred.
If the indicated error code is between [F01] and [F05], the Movie Camera will turn off automatically one minute after the [CAMERA] Lamp has started to flash.
If the indication is [F51] or [F52], the Movie Camera will not turn off automatically.

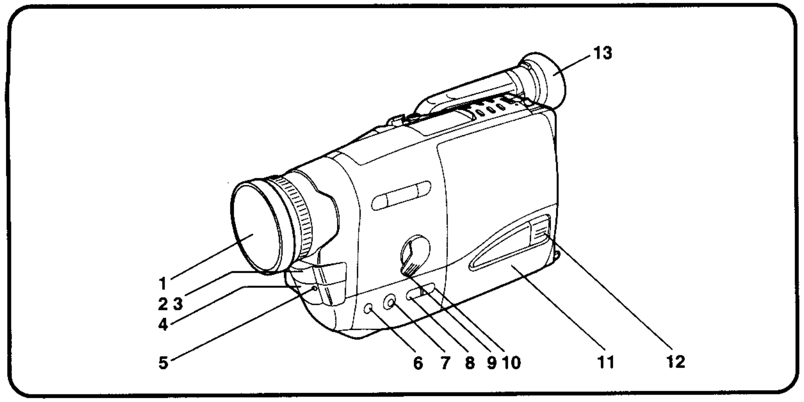
F01: Locked Take Up-Reel
F02: Locked Supply-Reel
F03: Locked Unloading Mechanism
F04: Locked Loading Mechanism
F05: Locked Cylinder
F51: Locked Focus Motor
F52: Locked Zoom Motor

| | | | | | |
|---|---|---|---|---|---|
| 1. VW-VBS10E<br>HHR-V211<br> | 2. VW-VBS20E<br>HHR-V212<br> | 3. VW-KBC2E<br> | 4. VW-ACC2E<br> | 5. VW-RF7E<br>/EG<br> | 6. VW-K10E<br> |
| 7. VZ-LDCS13E<br> | 8. VW-SK9E<br> | 9. VW-LF43WE<br> | 10.VW-LT4314WE<br> | 11.VW-LW4307WE<br> | 12.VZ-CT55E<br> |
| 13.VW-TCA7E<br> | 14.VW-VT1E<br> | 15.VW-EC1E<br> | 16.VW-EC500E<br> | 17.NV-MPD1<br> | |

## *Optional Accessories*

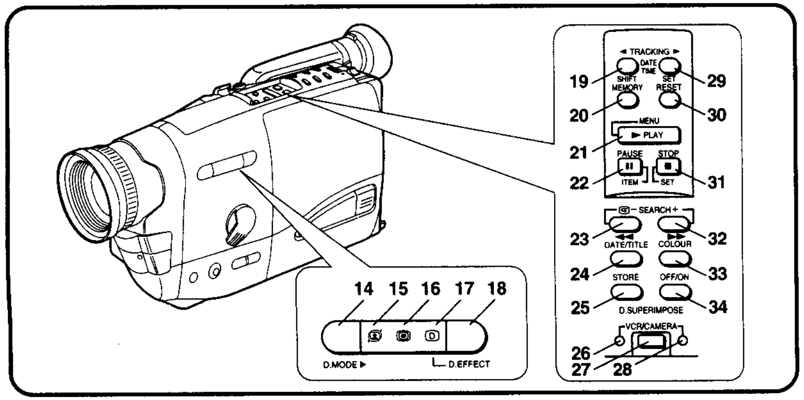
1. VW-VBS10E (Ni-Cd Battery)
   HHR-V211 (Ni-MH Battery)
2. VW-VBS20E (Ni-Cd Battery)
   HHR-V212 (Ni-MH Battery)
3. Car Battery Charger
4. Car Battery Cord
5. RF-Adaptor
6. 5-Pin Synchro Edit Cord
7. Video DC Light (requires the Shoe Adaptor for attaching to the Movie Camera)
8. Shoe Adaptor (for attaching the Video DC Light)
9. Filter Kit
10. Tele Conversion Lens
11. Wide Conversion Lens
12. Tripod
13. Cassette Adaptor
14. Video Titler
15. Editing Controller
16. Editing Controller
17. Colour Video Printer

Some accessories are not available in some countries.

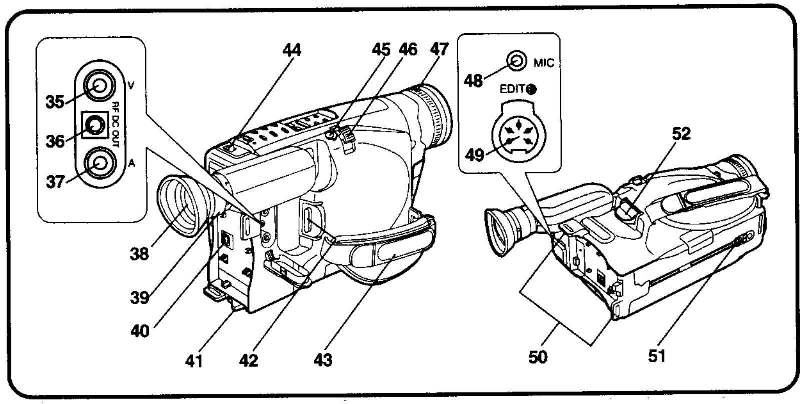

13
1
2 3
4
5
6 7 8 9 10
11
12

## Controls and Components

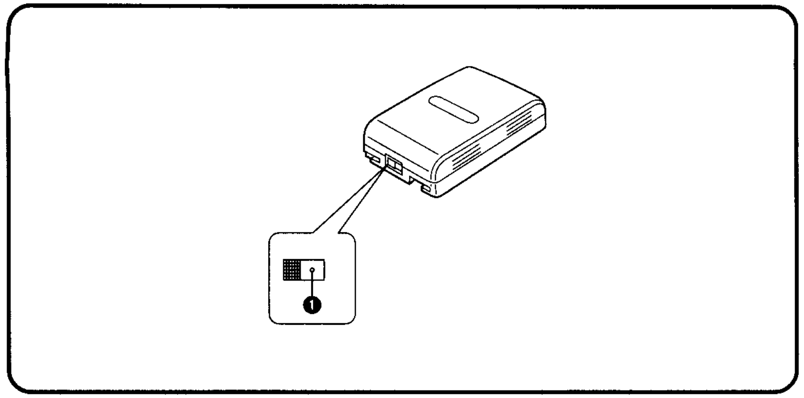
1 Lens Cap
2 White Balance Sensor
3 Remote Control Sensor
4 Microphone
5 Tally Lamp
6 Focus Button [FOCUS]
7 Backlight Button [BACKLIGHT]
8 Fade Button [FADE]
9 Auto Exposure Selector [PROGRAMME AE]
10 White Balance Button [W.B]
11 Cassette Compartment
12 Cassette Compartment Lock Button [LOCK]
13 Eyecup


◄ TRACKING ►
DATE TIME
SHIFT
SET
MEMORY
RESET
MENU
► PLAY
PAUSE
STOP
ITEM
SET
SEARCH+
DATE/TITLE
COLOUR
STORE
OFF/ON
D.SUPERIMPOSE
VCR/CAMERA
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
14 15 16 17 18
D.MODE ►
D.EFFECT

14 Digital Mode Selector Button [D.MODE▶]
15 Super Image Stabilizer Indication Lamp [◘]
16 Digital Zoom Indication Lamp [◉]
17 Digital Effect Indication Lamp [Ⓓ]
18 Digital Effect Selector Button [D.EFFECT]
19 Date/Time Shift Button/Tracking Button [DATE/TIME/SHIFT • ◀ TRACKING]
20 Memory Button [MEMORY]
21 Playback Button/Menu Button [PLAY/MENU]
22 Pause Button/Item Selector Button [PAUSE/ITEM]
23 Rewind/Review Button [◀◀/−SEARCH]
24 Date/Time/Title Button [DATE/TITLE]
25 Digital Image Store Button [STORE]
26 VCR (Playback) Mode Lamp [VCR]
27 VCR/Camera Mode Selector Button [VCR/CAMERA]
28 Camera (Recording) Mode Lamp [CAMERA]
29 Date/Time Set Button/Tracking Button [DATE/TIME/SET • TRACKING ▶]
30 Tape Counter Reset Button [RESET]
31 Stop Button/Item Set Button [STOP/SET]
32 Fast Forward/Cue Button [▶▶/SEARCH+]
33 Colour Selector for Digital Image [COLOUR]
34 Digital Image Superimpose Button [OFF/ON]


V
RF DC OUT
A
MIC
EDIT
35
36
37
38
39
40
41
42
43
44
45 46 47
48
49
50
51
52

35 Video Output Socket [VIDEO OUT]
36 Radio Frequency DC Output Socket [RF DC OUT]
37 Audio Output Socket [AUDIO OUT]
38 Finder
39 Eyepiece Corrector Ring
40 DC Input Socket [DC IN]
41 Battery Eject Lever [◀ BATTERY EJECT]
42 Recording Start/Stop Button
43 Grip Belt
44 Cassette Eject Lever [≜ EJECT]
45 Snapshot Recording Button [SNAP SHOT]
46 Zoom Lever [W • T]
47 Focus Ring
48 Microphone Socket [MIC]
49 Edit Socket [EDIT]
50 Shoulder Strap Holders
51 Tripod Receptacle
52 Power Switch [POWER]



## ■ Charging Time and Maximum Time for Continuous Recording in the Manual Recording Mode

| Battery Model No. | Charging Time | Max. Continuous Recording Time |
|---|---|---|
| **supplied** | 60 min. | 50 min. |
| **VW-VBS10E** | 65 min. | 55 min. |
| **VW-VBS20E** | 130 min. | 110 min. |
| **HHR-V211** | 100 min. | 90 min. |
| **HHR-V212** | 200 min. | 180 min. |

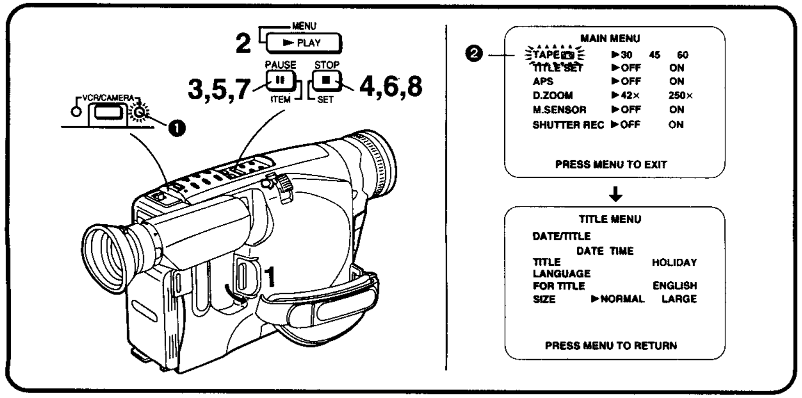
(The times shown in the above chart are approximations.)

Maximum Continuous Recording Time means the duration of continuous recording performed at an ambient temperature of 20°C and 60% relative humidity. In actual recording, however, the use of the zoom and other functions increases the power consumption, and higher or lower temperatures reduce the Battery's ability to generate electricity. Therefore, the actual recording time per Battery may be approximately 30%–50% shorter than listed above.

## ■ Using the Charge Confirmation Marker

You can use this marker to easily distinguish between charged and discharged Batteries.
For example, slide the knob so that the red dot ❶ is visible after charging is completed.

Contains a Nickel-Cadmium Battery. Must be recycled or disposed properly.


2
MENU
► PLAY
PAUSE
STOP
3,5,7
ITEM
SET
4,6,8
VCR/CAMERA
❶
1
❷
MAIN MENU
TAPE
►30 45 60
TITLE SET ►OFF ON
APS ►OFF ON
D.ZOOM ►42× 250×
M.SENSOR ►OFF ON
SHUTTER REC ►OFF ON
PRESS MENU TO EXIT
TITLE MENU
DATE/TITLE
DATE TIME
TITLE HOLIDAY
LANGUAGE
FOR TITLE ENGLISH
SIZE ►NORMAL LARGE
PRESS MENU TO RETURN

## Using the Main Menu

**1 Turn out the [POWER] Switch to turn the Movie Camera on.**
- The [CAMERA] Indication Lamp ❶ lights.

**2 Press the [MENU] Button.**
- The Main Menu [MAIN MENU] appears.

**3 Press the [ITEM] Button repeatedly to select the desired item.**
- The indication of the selected item ❷ flashes.

**4 Press the [SET] Button to select the desired mode.**
- The selected mode is marked with the [▶] mark.

## Using the Title Menu

**After displaying the Main Menu [MAIN MENU]...**

**5 Press the [ITEM] Button repeatedly to select [TITLE SET].**

**6 Press the [SET] Button to select [ON].**
- The Title Menu [TITLE MENU] appears.

**7 Press the [ITEM] Button repeatedly to select the desired item.**

**8 Press the [SET] Button to select the desired mode.**

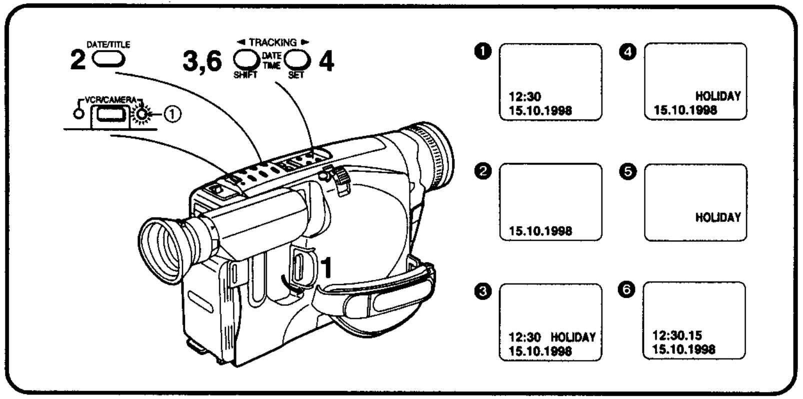
### ■ Returning to the Main Menu

Press the [MENU] Button.

### ■ Exiting the Menu Function

Press the [MENU] Button.

- The selections made on the Menu will be maintained even when the Movie Camera is turned off.
- When the Movie Camera is connected to a TV, it is possible to display the Menu on the TV.


2
DATE/TITLE
◄ TRACKING ►
3,6
DATE TIME
SHIFT
SET
4
VCR/CAMERA
①
1
❶
12:30
15.10.1998
❷
15.10.1998
❸
12:30 HOLIDAY
15.10.1998
❹
HOLIDAY
15.10.1998
❺
HOLIDAY
❻
12:30.15
15.10.1998

## *Setting the Date and Time*

**1 Turn out the [POWER] Switch to turn the Movie Camera on.**
- The [CAMERA] Lamp ① lights.

**2 Press the [DATE/TITLE] Button to make the Date/Time/Title Indication appear.**
- To set the date and time, one of the indications other than the Title Indication alone ❺ shown above must be displayed. If the Title Indication alone ❺ is displayed, select another Date/Time/Title indication (❶ - ❹ or ❻).

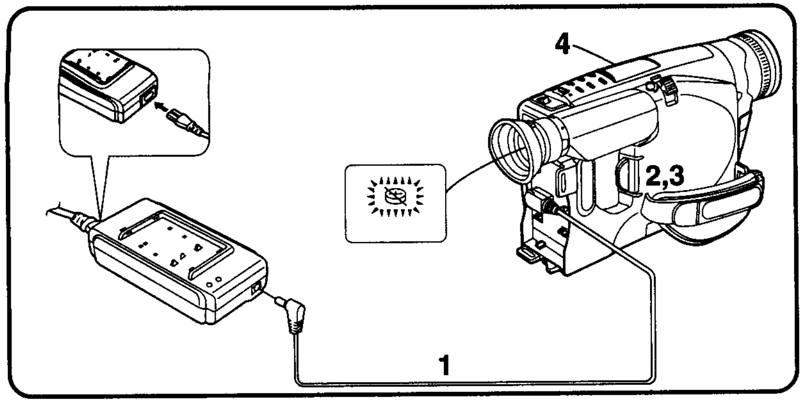
**3 Press the [DATE/TIME/SHIFT] Button until the "Year" portion flashes.**

**4 Press the [DATE/TIME/SET] Button repeatedly until the current year (for example: 1998) is displayed.**
- The figures in the Date/Time Indication change in the following order:

Year: 1990→1991→ ............ →2089→1990→...
Month: 1→2→ ........................ →12→1→...
Day: 1→2→ ........................ →31→1→...
Hour: 0→1→ ........................ →23→0→...
Minute: 00→01→ .................... →59→00→...

**5 Also set the "Month", "Day", "Hour", "Minute" in the same way as explained in steps 3 and 4.**

**6 After you have set the date and time and confirmed that they are correct, press the [DATE/TIME/SHIFT] Button.**
- The operation of the clock starts.



## Charging the Built-in Lithium Battery

The internal clock works even when the Movie Camera is turned off, and it consumes power from the built-in lithium battery. When the Movie Camera is in operation, it automatically charges this battery. However, if the Movie Camera is not used for a very long time, the lithium battery can become discharged. This has occurred if the [⊗] Indication flashes when you turn on the Movie Camera. In this case, perform the following operations.

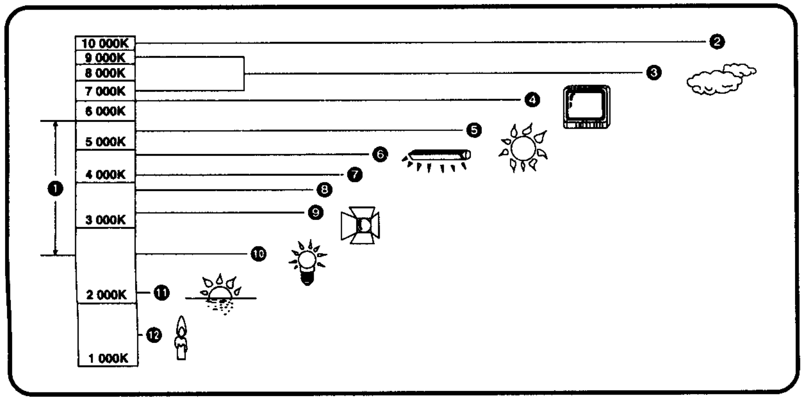
### ■ Charging the Built-in Lithium Battery and Other Required Operations

1 **Connect the AC Adaptor to the mains and to the Movie Camera.**

2 **Leave the Movie Camera turned off.**
- Although charging the lithium battery is possible with the Movie Camera turned on or off, we recommend to keep it turned off to conserve energy.

3 **Leave the Movie Camera in this condition for approximately 4 hours.**
- Charging the lithium battery in this way for 4 hours maintains the clock operation for approximately 6 months, charging for 26 hours (full charge) maintains it for approximately 2 years.

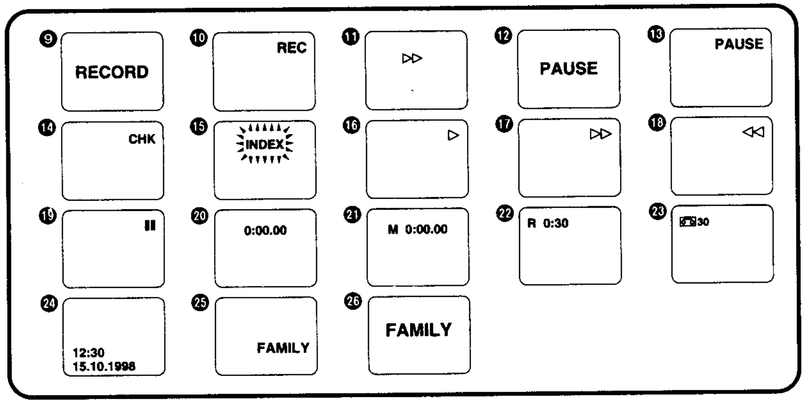
4 **Set the clock to the current date and time.**



## Colour Temperature and White Balance Adjustment

Every light source has its own colour temperature measured in Kelvin (K). The higher the Kelvin value, the more bluish the light; the lower the value, the more reddish the light. The Kelvin value is related to the tint of the light, but not directly to its brightness.
The range ① indicated in the illustration above shows the light sources for which this Movie Camera can provide precise white balance adjustment and, therefore, natural colours in the recorded pictures, when using the Full Auto Mode. For light sources outside this range, adjust the white balance manually. Also, additional lighting may be necessary.

① Control range of this Movie Camera's Auto White Balance Adjustment Mode
② Blue sky
③ Cloudy sky (Rain)
④ TV screen
⑤ Sunlight
⑥ White fluorescent lamp
⑦ 2 hours after sunrise or before sunset
⑧ 1 hour after sunrise or before sunset
⑨ Halogen light bulb
⑩ Incandescent light bulb
⑪ Sunrise or sunset
⑫ Candlelight



### ■ Recording and Playback Indications

**⑨ Recording Mode (large indication)**
**⑩ Recording Mode (small indication)**
**⑪ Tape Movement during Recording**
**⑫ Recording Pause Mode (large indication)**
**⑬ Recording Pause Mode (small indication)**
**⑭ Recording Check Mode**
**⑮ Index Signal Recording Mode**

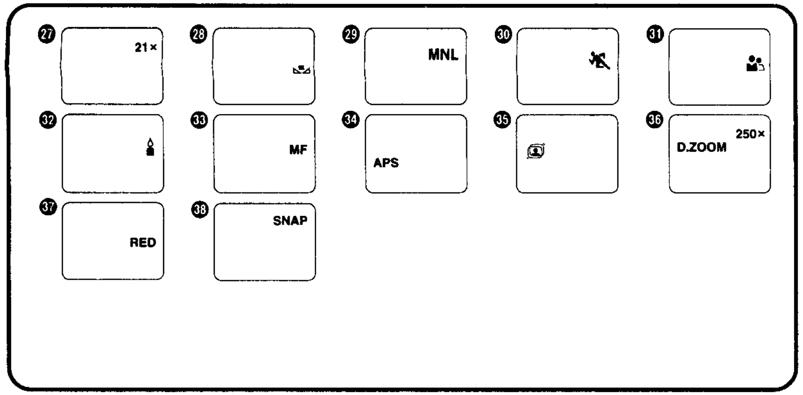
An index signal is automatically recorded (and the [INDEX] Indication flashes briefly while it is being recorded) when you:
- Turn the Movie Camera on and start recording.
- Start recording after inserting a cassette.
- Press the [VCR/CAMERA] Button to change from the VCR to the Camera Mode or vice versa.

The recording of index signals makes it possible to use the VHS Index Search or Intro Scan Function during playback on a VCR equipped with these functions.
(Refer to the operating instructions of your VCR.)

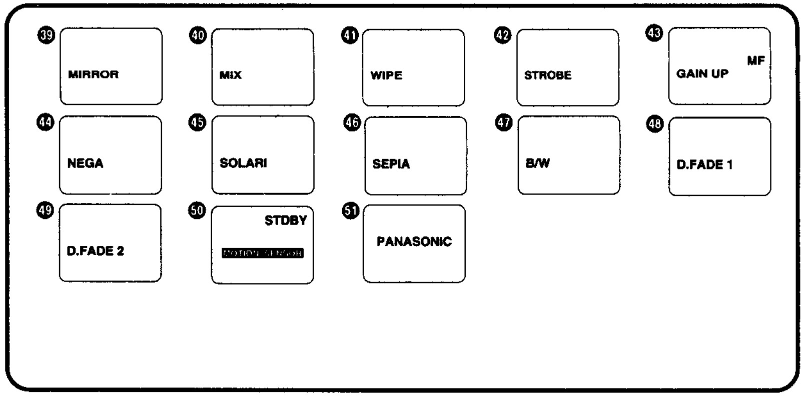
**⑯ Playback Mode (→ 58) / Camera Search Mode**
**⑰ Fast Forward/Cue Mode**
**⑱ Rewind/Review Mode Camera Search Mode**
**⑲ Still Playback Mode**
**⑳ Elapsed Tape Time**

When the tape is rewound further than the Elapsed Tape Time Position [0:00.00], the minus sign [–] appears in front of the Elapsed Tape Time Indication.

**㉑ Elapsed Tape Time with activated Memory Stop Function**
**㉒ Remaining Tape Time**
**㉓ Tape Length**
**㉔ Date and Time**
**㉕ Title (small indication)**
**㉖ Title (large indication)**


㉗
21×
㉘
㉙
MNL
㉚
㉛
㉜
㉝
MF
㉞
APS
㉟
㊱
250×
D.ZOOM
㊲
RED
㊳
SNAP

㉗ **Zoom Magnification**
㉘ **Manual White Balance Mode**
㉙ **Manual Recording Mode**
㉚ **Sports Mode**
㉛ **Portrait Mode**
㉜ **Low Light Mode**
㉝ **Manual Focus Mode**
㉞ **Power Save Mode**
㉟ **Super Image Stabilizer Mode**
㊱ **Digital Zoom Mode**
㊲ **Colour Indication for Digital Image**
㊳ **Snapshot Recording Mode**


㊴
MIRROR
㊵
MIX
㊶
WIPE
㊷
STROBE
㊸
MF
GAIN UP
㊹
NEGA
㊺
SOLARI
㊻
SEPIA
㊼
B/W
㊽
D.FADE 1
㊾
D.FADE 2
㊿
STDBY
(51)
PANASONIC

㊴ **Mirror Mode**
㊵ **Mix Mode**
㊶ **Wipe Mode**
㊷ **Strobe Mode**
㊸ **Gain up Mode**
㊹ **Nega Mode**
㊺ **Solarisation Mode**
㊻ **Sepia Mode**
㊼ **Black-and-White Mode**
㊽ **Digital Fade 1 Mode**
㊾ **Digital Fade 2 Mode**
㊿ **Stand-by Condition in the Motion-Sensor-Controlled Recording Mode**
(51) **Demonstration Mode**

## Demonstration Mode

If you connect the AC Adaptor to the Movie Camera, turn the Movie Camera on without any cassette inserted, and leave it on for approximately 10 minutes without performing any operation, it automatically switches over to the Demonstration Mode. The Movie Camera remains in this mode until you turn it off and disconnect the AC Adaptor.

### ■ Cancelling the Demonstration Mode

Turn in the [POWER] Switch to turn the Movie Camera off. Then turn it out again while pressing the [STOP] Button.

### ■ Reactivating the Demonstration Mode

While pressing the [PLAY] Button, turn out the [POWER] Switch. The Demonstration Mode starts after 6 seconds.

# SECTION 2
# ADJUSTMENT PROCEDURES

## 2-1. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

| No. | ITEM/PART | FIG. | REMOVAL (SCREW) |
|---|---|---|---|
| 1 | Side Case (L) Unit | Fig. 1 | 3-SCREW (A) |
| | | Fig. 2 | 5-SCREW (B) |
| | | Fig. 3 | 2-LOCKING TAB (a)<br>Slightly open the Side Case (L) Unit.<br>Disconnect P1001 and FP6004. |
| 2 | EVF Unit | Fig. 4 | 4-LOCKING TAB (b) |
| 3 | Cassette Cover | Fig. 5 | 2-SCREW (C) |
| 4 | Side Case (R) Unit With Top Operation Panel | Fig. 6 | 1-SCREW (D) |
| | | Fig. 2 | 2-SCREW (E) |
| | | Fig. 6 | 4-LOCKING TAB (c)<br>Slightly open the Side Case (R) Unit with Top Operation Panel.<br>Disconnect FP6003 and FP6006. |
| 5 | Front Case Unit | Fig. 6 | 3-LOCKING TAB (d)<br>Disconnect FP4002. |
| 6 | Rear Case Unit | Fig. 7-1 | 1-SCREW (F)<br>Disconnect PS1003, PS3009 and FP6005.<br>1-LOCKING TAB (e) |
| | | Fig. 7-2 | **Caution for FP6005.**<br>FP6005 is new type connector. Please refer to Fig. 7-2 for how to disconnect the FP6005. |
| 7 | CAMERA/MAIN C.B.A. | Fig. 7-1 | 1-SCREW (G)<br>1-SCREW (H)<br>Remove the Shield Case for the Head AMP.<br>Disconnect the following connectors;<br>FP5001, FP6001, FP6002, PP301, FP4001, FP2001, FP2002, FP701 |
| 8 | Lens Unit | Fig. 8 | 2-SCREW (I) |
| 9 | Mechanism Unit | Fig. 8 | 1-SCREW (J)<br>1-SCREW (K) |
| 10 | EVF C.B.A. | Fig. 9 | Turn the Eye Cap Unit counterclockwise and remove it. |
| | | Fig. 10 | Turn the EVF Rotary Angle clockwise until you can see a Screw (L).<br>3-LOCKING TAB (f) |

**Fig. 1**

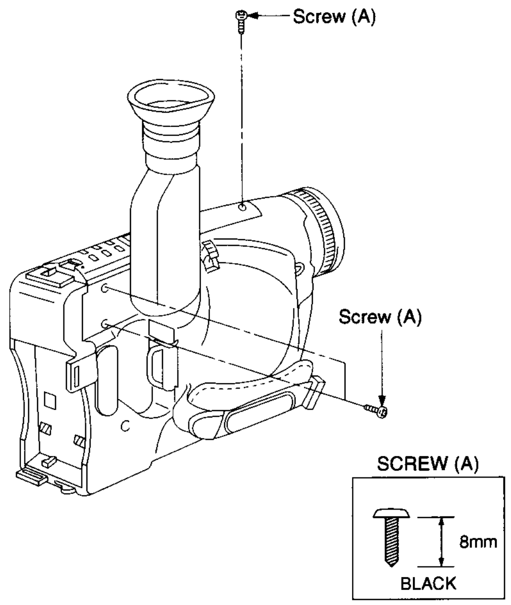


**Fig. 2**

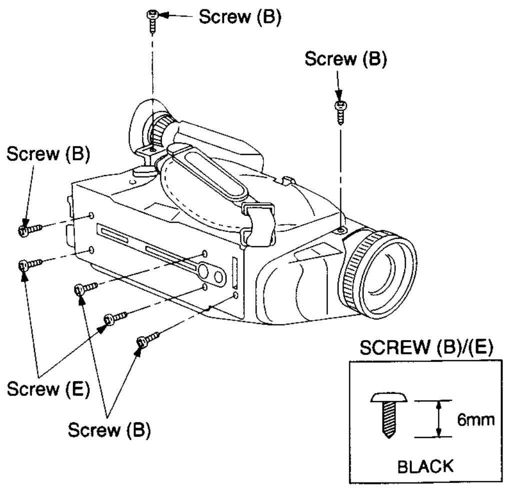


**Fig. 3**

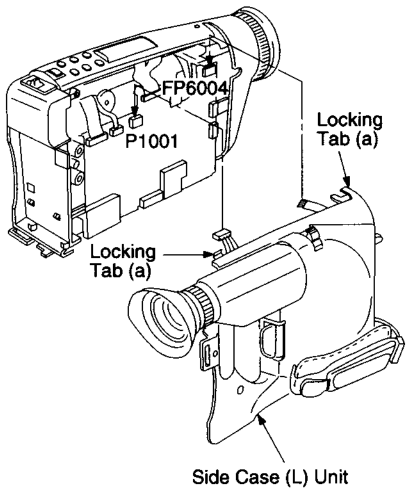

FP6004
P1001
Locking Tab (a)
Locking Tab (a)
Side Case (L) Unit

**Fig. 6**

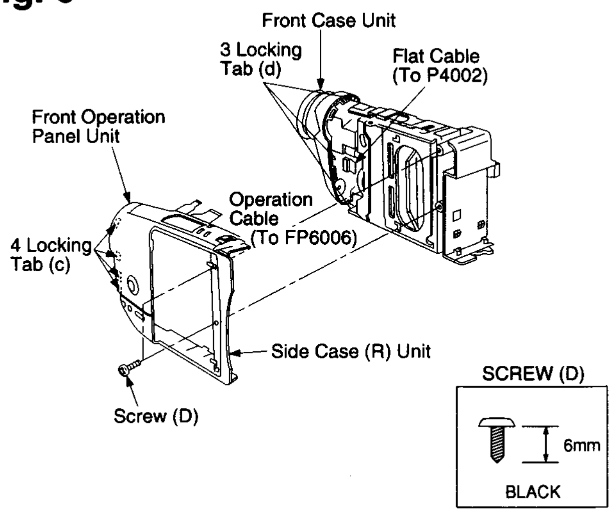

Front Case Unit
3 Locking Tab (d)
Flat Cable (To P4002)
Front Operation Panel Unit
Operation Cable (To FP6006)
4 Locking Tab (c)
Side Case (R) Unit
Screw (D)
SCREW (D)
6mm
BLACK

**Fig. 4**

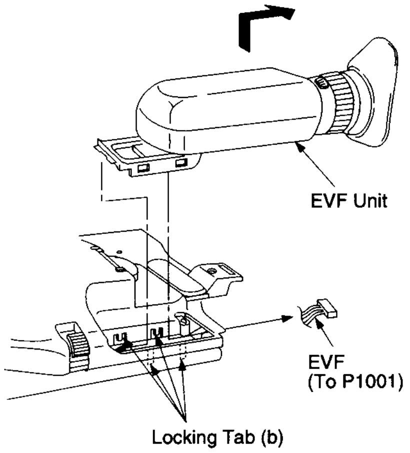

EVF Unit
EVF (To P1001)
Locking Tab (b)

**Fig. 7-1**

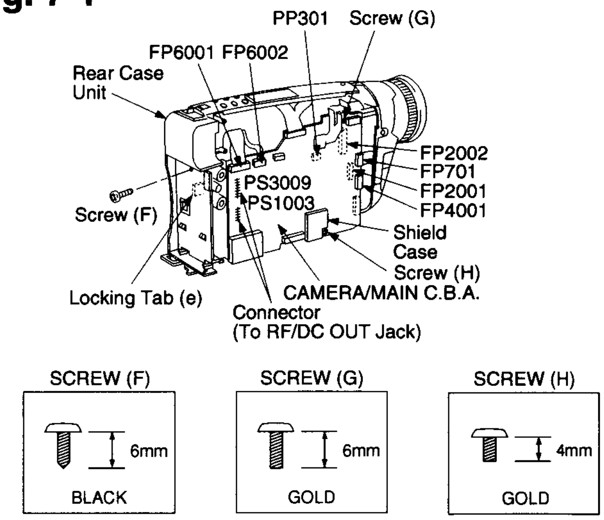

PP301
Screw (G)
FP6001
FP6002
Rear Case Unit
FP2002
FP701
FP2001
FP4001
PS3009
PS1003
Screw (F)
Shield Case
Screw (H)
Locking Tab (e)
CAMERA/MAIN C.B.A.
Connector (To RF/DC OUT Jack)
SCREW (F)
6mm
BLACK
SCREW (G)
6mm
GOLD
SCREW (H)
4mm
GOLD

**Fig. 5**

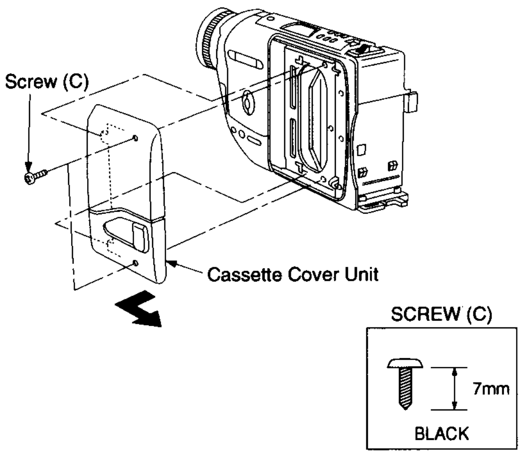
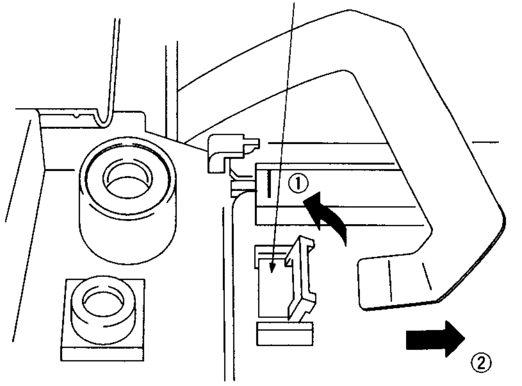

Screw (C)
Cassette Cover Unit
SCREW (C)
7mm
BLACK

**Fig. 7-2**



Slightly light up the stoper for FP6005, the disconnect the Flexble Card connector.

**Fig. 8**

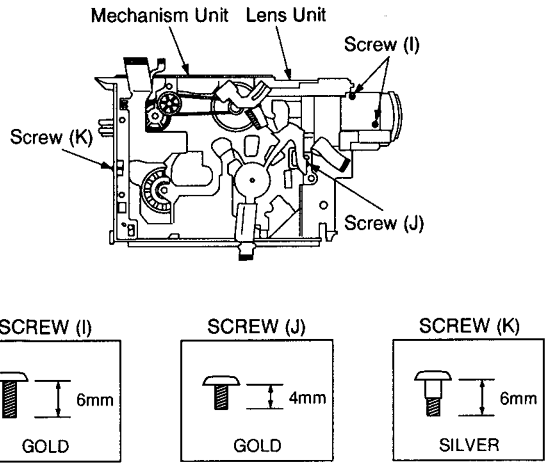

Mechanism Unit
Lens Unit
Screw (I)
Screw (K)
Screw (J)
SCREW (I)
6mm
GOLD
SCREW (J)
4mm
GOLD
SCREW (K)
6mm
SILVER

**Fig. 9**

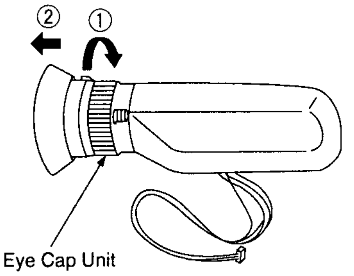
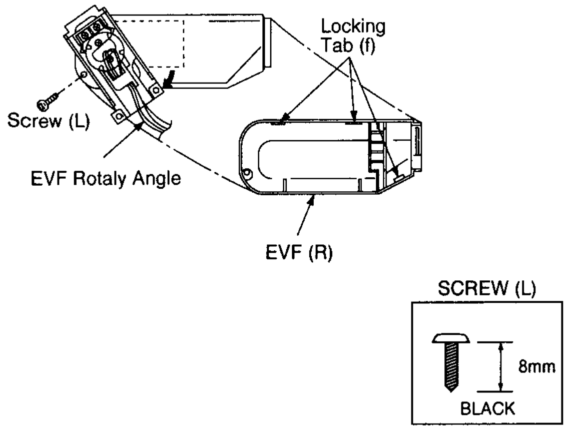

②
①
Eye Cap Unit

**Fig. 10**


Locking
Tab (f)
Screw (L)
EVF Rotaly Angle
EVF (R)
SCREW (L)
8mm
BLACK

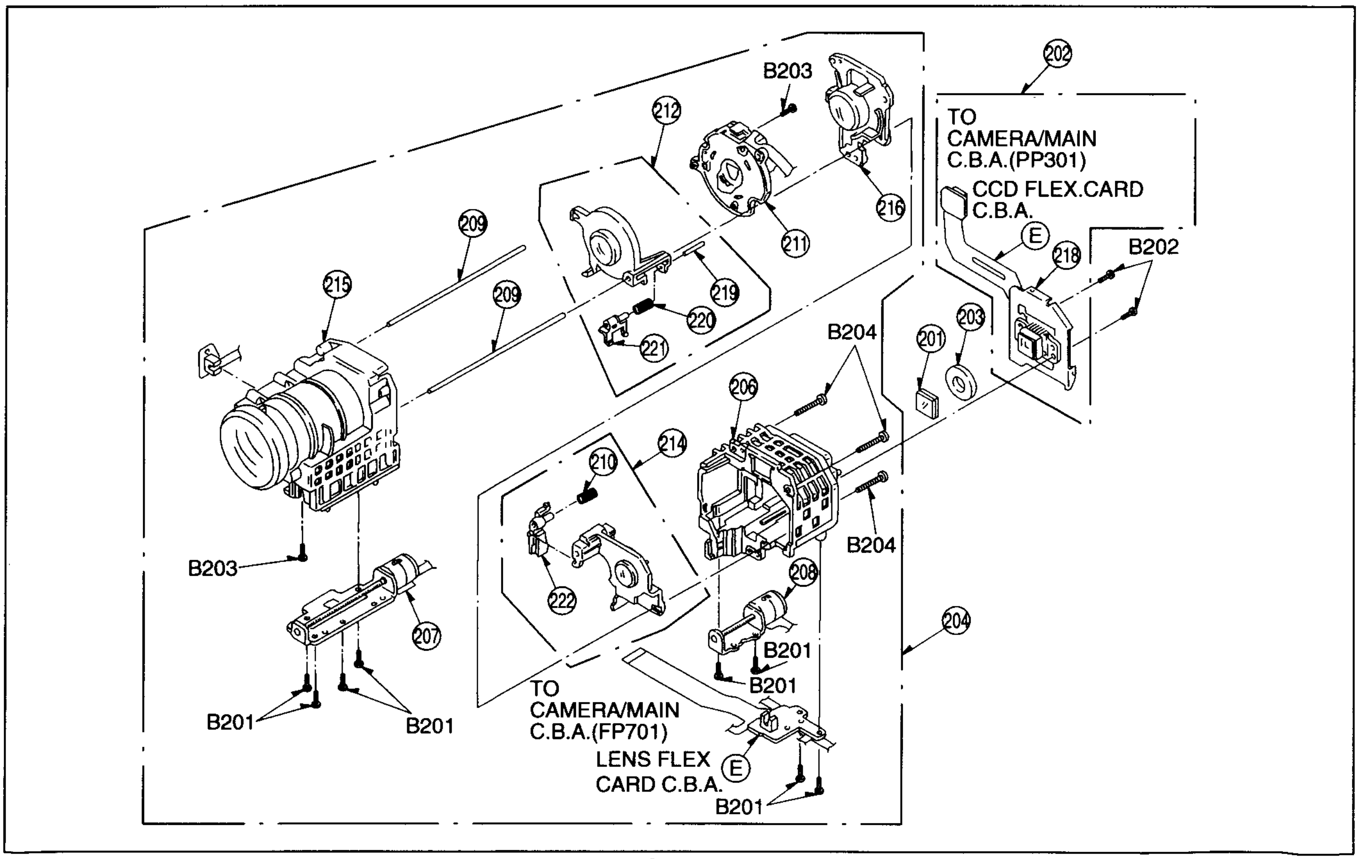
## 2-2. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps for removing the lens units and certain printed circuit boards in order to make access to the item needing service.
To reassemble the unit follow the steps in reverse order.

| | |
|---|---|
| 1. CCD Unit | Ref.-No. 202 |
| 2. CCD Cushion & Crystal Filter | Ref.-No. 203/201 |
| 3. Focus Motor Unit | Ref.-No. 208 |
| 4. Zoom Motor Unit | Ref.-No. 207 |
| 5. Master Flange | Ref.-No. 206 |
| 6. 4th Moving Frame Unit | Ref.-No. 214 |
| 7. 3rd Lens Frame Unit | Ref.-No. 216 |
| 8. Iris Unit | Ref.-No. 211 |
| 9. 2nd Moving Frame Unit | Ref.-No. 212 |
| 10. Zoom Guide Pole | Ref.-No. 209 |

Note: Each Ref.-numbers are equivalant to number on Fig. L2 and Parts-List.

Fig. L1



B203
202
212
TO
CAMERA/MAIN
C.B.A.(PP301)
CCD FLEX.CARD
C.B.A.
E
216
211
209
209
218
B202
215
219
220
221
B204
201
203
206
214
210
B204
B203
222
208
207
204
B201
B201
B201
B201
TO
CAMERA/MAIN
C.B.A.(FP701)
LENS FLEX
CARD C.B.A.
E
B201

Fig. L2

## 2-3. ELECTRICAL ADJUSTMENT PROCEDURE FOR EVF SECTION

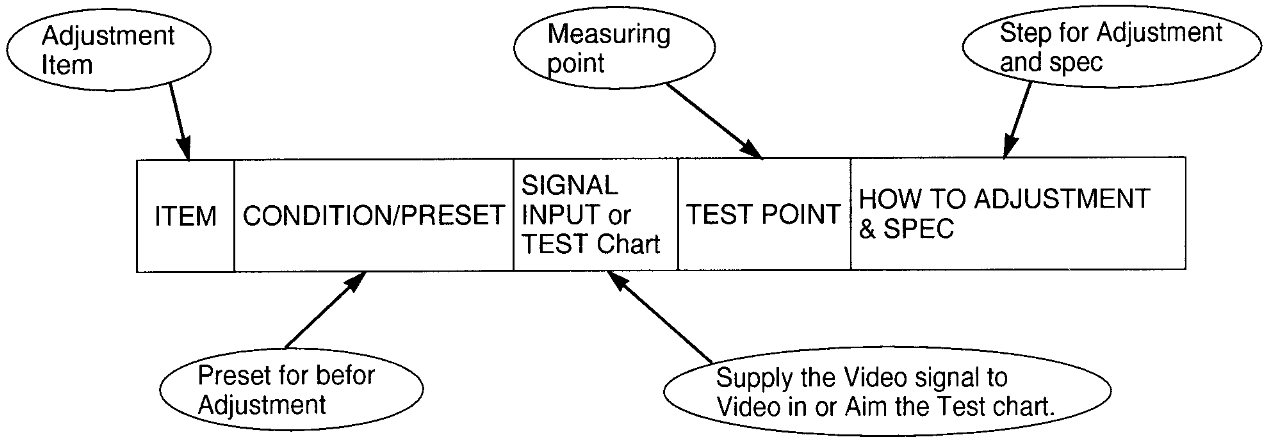
The following Equipment are required for adjustment of the Electric Viewfinder.

1. Chart: Ball chart/Registration chart/Gray Scale chart.
2. Tools: Plastic Tip driver

The following adjustment are Electric Viewfinder.

Preparation: (A). Remove the E.V.F. Unit from Side Case (L).
(Remove the 2 screws from Side Case (L)).
(B). Turn the E.V.F. Rotary Angle clockwise until you can see a 1 screw and Unlock the 3 locking tabes.
(Please refer to Fig. E1.)

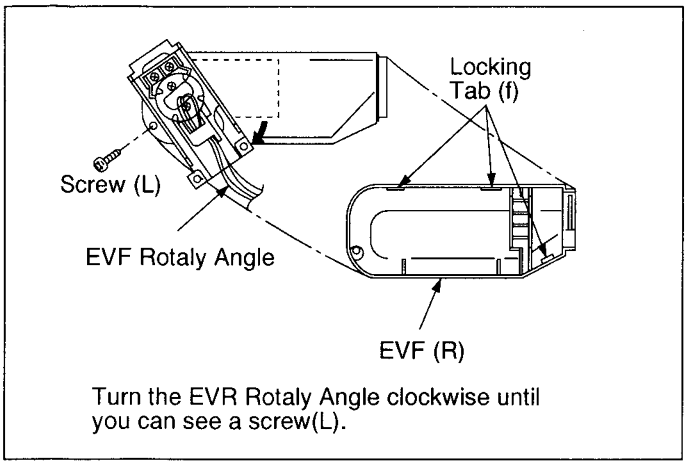
How to read the Adjustment Procedure.


Adjustment Item
Measuring point
Step for Adjustment and spec
ITEM
CONDITION/PRESET
SIGNAL INPUT or TEST Chart
TEST POINT
HOW TO ADJUSTMENT & SPEC
Preset for befor Adjustment
Supply the Video signal to Video in or Aim the Test chart.

### ELECTRICAL ADJUSTMENT FOR EVF SECTION

| ITEM | CONDITION/PRESET | SIGNAL INPUT or TEST Chart | TEST POINT | HOW TO ADJUSTMENT & SPEC |
|---|---|---|---|---|
| 1<br>CENTERING | Aim the Camera at Registration chart. | Registration Chart | E.V.F. on Screen | Adjust the deflection-yoke centering magnet turning so that picture on E.V.F. is centred. Please refer to Fig. E2. |
| 2<br>FOCUS | Aim the Camera at Ball Chart. | Ball Chart | E.V.F. on Screen | Adjust the VR803 for best resolution in the Viewfinder.<br>After performed this adjustment, confirm “A” Part of VR803.<br>“A” part is outside of 100 degree.<br>Please refer to Fig. E3. |
| 3<br>VERTICAL SIZE | Aim the Camera at Gray Scale Chart. | Gray Scale Chart | E.V.F. & TV on Screen | Adjust the VR801 for best vertical size. (Picture does not roll as shown in Fig. E4.) |
| 4<br>BRIGHTNESS | Aim the Camera at Gray Scale Chart. | Gray Scale Chart | E.V.F. & TV on Screen | Adjust the VR804 so brightness in viewfinder is same as monitor TV. |

## PREPARATION


Locking Tab (f)
Screw (L)
EVF Rotaly Angle
EVF (R)

Turn the EVR Rotaly Angle clockwise until you can see a screw(L).

Fig. E1

## CENTERING ADJUSTMENT

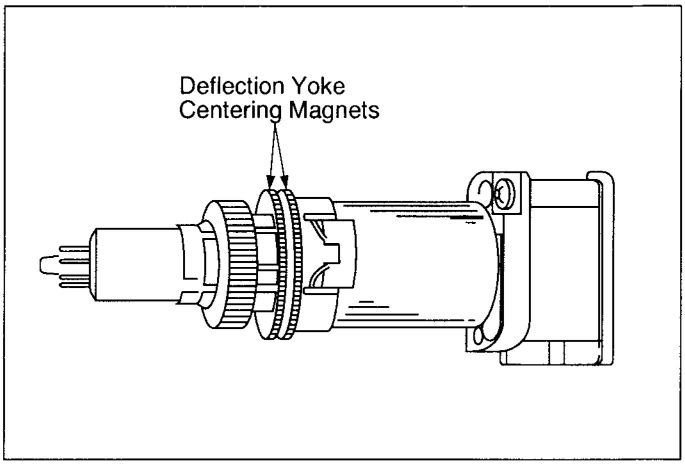

Deflection Yoke Centering Magnets

Fig. E2

## FOCUS ADJUSTMENT

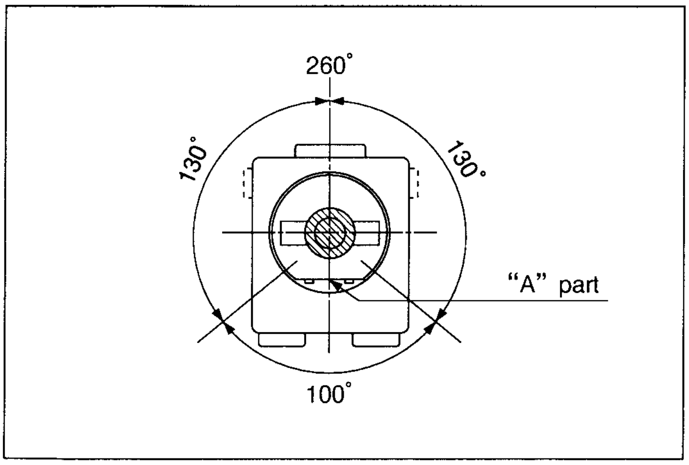

260°
130°
130°
"A" part
100°

Fig. E3

## VERTICAL ADJUSTMENT

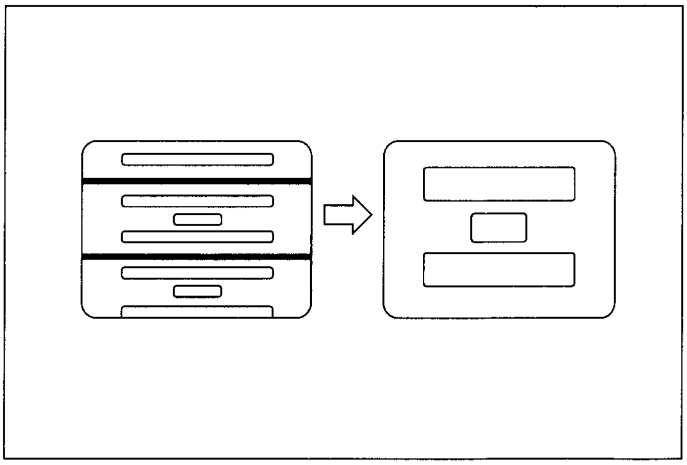
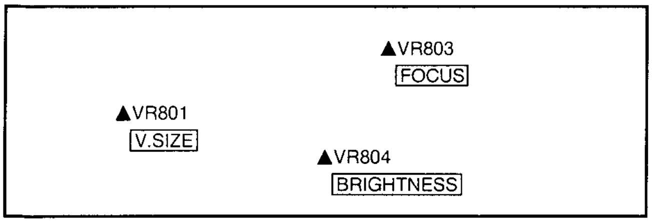


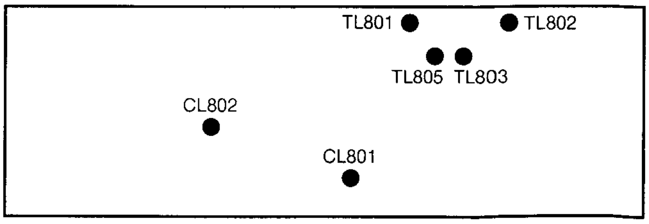
Fig. E4

## LOCATION OF TEST POINTS & CONTROLS

### EVF C.B.A.


▲VR803
FOCUS
▲VR801
V.SIZE
▲VR804
BRIGHTNESS

(COMPONENT SIDE)


TL801
TL802
TL805
TL803
CL802
CL801

(FOIL SIDE)

# SECTION 3
# BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

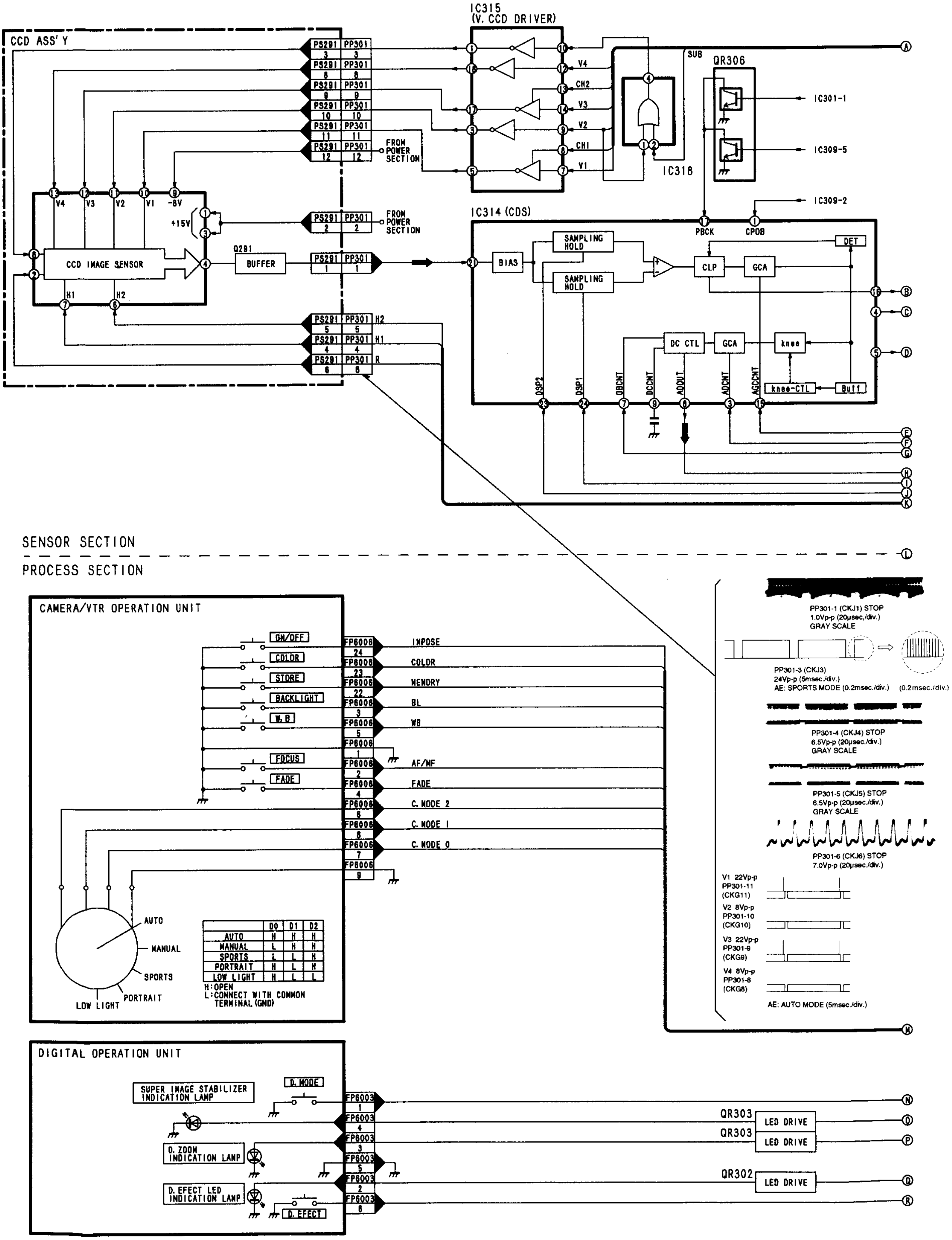
## 3-1. ABBREVIATIONS

| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| A | A. TR | Auto Tracking |
| | ABSF | Focus Encoder Input |
| | AD REC | Audio Delaied REC |
| | ADCLK | Analogue Digital Clock |
| | ADCNT | Analogue Digital Control |
| | ADCS | Analogue Digital Chip Select |
| | AE | Auto Expose |
| | AECNT | Auto Expose Control |
| | AEIRQ | Auto Expose Interrupt Request |
| | AFADE | Audio Fade |
| | AGCCNT | Automatic Gain Control Control |
| | AGS | Anti Ground Shooting |
| | ALCCNT | Auto Level Control Control |
| | ALCMAIN | Auto Level Control Drive |
| | AMUT | Audio Mute |
| | AORP | Audio Overlap Pulse |
| | APCNT | Aperture Control |
| | APS | Auto Power Save |
| | ARTV | Artifical Vertical Sync |
| | ATR | Auto Tracking |
| | AVDD | Analogue VDD |
| | AVSS | Analogue Ground |
| | AWTB | Auto White Balance B-Y |
| | AWTR | Auto White Balance R-Y |
| B | B-Y KB | B-Y Carrier Balance |
| | BACK | Back-up |
| | BCBM (B-Y) | B-Y Carrier Balance |
| | BCBM (R-Y) | R-Y Carrier Balance |
| | BFA | Burst Flug for Encoder |
| | BFND | Burst Flag Pulse |
| | BFO/BFI | Burst Flug Input/Output |
| | BL | Back Light |
| | BLC O, I | Back Light Y Control Out, In |
| | BLD I/O | Back Light Drive Input/Output |
| | BLK | Blanking Pulse |
| | BLK I/O | Blanking Pulse In/Out |
| | BM | Balance Modulator |
| | BUF | Buffer |
| C | C CNT | Colour Control |
| | C/N | Carrier/Noise |
| | CAMCLK | Camera Clock |
| | CAP R/F/S | Capstan Revers (H)/Stop (M)/Foward (L) |
| | CAPVM | Capstan Motor Current |
| | CASDWN | Cassette Down |
| | CBLK | Composite Blanking Pulse |
| | CCW | Counter-Clockwise |
| | CDS | Correlate Double Sampling Signal |
| | CFEM | Chrominance Memory Signal |
| | CGC | Chrominance Gain |
| | CH1 | Channel 1 (Odd Field) |
| | CHR MIX | Character Mix |
| | CL/ CLK | Clock |
| | CMO | Chroma Memory Output |
| | CMODE | Camera Mode |
| | CO 0-7 | Chrominance Output 0 to 7 (Digital) |
| | COM | Common |
| | CP | Clamp Pulse |
| | CPOB | Clamp Pulse for Optical Blanking |
| | CPS | Composite Signal |
| | CRST | Camera Reset |
| | CS | Chip Select |
| C | CS 0-7 | Chrominance Signal Out 0-7 |
| | CSEL | Clock Phase Select |
| | CW | Clockwise |
| | CYLVM | Cylinder Motor Current or Power |
| D | D MODE | Digital Mode Switch Signal |
| | DAC | Digital Analog Converter |
| | DAC | Digital Analogue Converter |
| | DB 0-7 | Data 0-7 |
| | DCLR | Digital Clear |
| | DCP | Digital Clamp Pulse |
| | DICLK | Digital Clock |
| | DIS | Digital Image Stabilizer |
| | DISCS | Dis Chip Select |
| | DISP | Display |
| | DL | Delay Line |
| | DOCTL | Data Output Control |
| | DODAT | Serial Data (to D/A Converter) |
| | DRK | Dark |
| | DS | Double Sampling Pulse |
| | DS 1, 2 | Double Sampling Pulse |
| | DSP | Digital Signal Processor |
| | DVDD | Digital VDD |
| | DVSS | Digital Ground |
| | DZ | Digital Zoom |
| E | E Snap | Electric Snap Shot |
| | E2P | EEPROM |
| | ECM | Electric Condencer Mic |
| | EE CS | EEPROM Chip Select |
| | EEPROM | Electric Erasable Programable Read Only Memory |
| | ENV | Enverope |
| | EQ | Equalizer |
| | EXT DC | External DC (AC Adaptor) |
| | EZOOM | Electric Zoom |
| F | F | Far (Focus) |
| | FCK | Clock |
| | FENC | Focus Encoder |
| | FM0-7 | Field Memory 0-7 |
| | FMCS | Chip Select for FM-Audio |
| | FMDREC | FM Audio Delayed REC |
| | FMOEM | Field Memory Enable |
| | FMT 1-4 | Focus Motor Terminal 1-4 |
| | FNO | F Value |
| G | GCNT | Gain Control |
| | GSW | Ground for Switching Power |
| H | H 1, 2 | H. CCD Drive Pulse |
| | HASW | HEAD AMP SW |
| | HBRST | High Bright Set |
| | HCLR | High Clear |
| | HCP | Shift Clock for Horizontal Drive |
| | HEX | Hexadecimal |
| | HLT | High Bright Signal |
| | HSS | Horizontal Sync Signal |
| | HSS | High Speed Shutter |
| I | INTER | Interval Recording |
| | INV | Inverter |
| | IOU | R-Y Analogue Signal Output |
| | IOV | B-Y Analogue Signal Output |
| | IRDET | Infrared Rays Detection |

| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| I | IRIS/SH | Iris/Shutter Control |
| | IRQ | Interrupt Request |
| K | KANDO | Digital Gain Up |
| | KND | Digital Gain Up |
| | KNEE | Knee Corection ( $\gamma$ Control) |
| L | LCD | Liquid Crystal Display |
| | LD | Load Pulse |
| | LEDCNT | LED Control |
| | LI-BATT | Lithium Battery |
| | LSB | Least Significant Bit |
| | LVL | LPF Switch for Auto Focus |
| M | MD | Modulation |
| | MENB | Focus Motor Enable |
| | MFF | Manual Focus Far |
| | MFN | Manual Focus Near |
| | MIX N.R.D | Non Rec Data Mix |
| | MRST | Focus Motor Reset |
| | MSB | Most Signal Bit |
| | MVSYNC | Monitor Vertical Sync Signal |
| N | N | Near (Focus) |
| | N/F | Near/Far Focus |
| | N/P | NTSC/PAL |
| | NC | No Connection |
| | NDE | Non Liner De-Emphasis |
| | NLE | Non Liner Emphasis |
| | NR | Noise Reduction |
| | NRD | Non Rec Data |
| | NRD BLK | No Rec Data Blanking |
| | NRD CLK | No Rec Data Clock |
| | NRDBLK | Non Rec Data Blanking |
| | NRE | Read Enable Input (Low Active) |
| | NWE | Write Enable (Low Active) |
| O | OBCNT | Optical Black Control |
| | OE | Output Enable |
| | OP | Operation AMP Output |
| | OSD | ON Screen Display |
| | OVL | Overlap Pulse |
| | OZ | Optical Zoom |
| P | PAJ | Picture Control |
| | PB1-3 | PNP Base 1-3 |
| | PBCTL | Play Back Control |
| | PBCTL | Pre-Branking Control |
| | PBLK | Pre-Branking (Pulse) |
| | PCBM | Carrier Balance |
| | PED | Pedestal |
| | PEDECNT | Pedestal Control |
| | PREAMP | Pre-AMP |
| | PREBLK | Pre-Blanking |
| | PT | Protect for V Voltage |
| | PWM | Pulse Width Modulation |
| R | R/B | Read/Busy |
| | R-Y KB | R-Y Carrier Balance |
| | RAD | Reed Address Data |
| | RAE | Read Address Enable |
| | RE | Read Enable |
| | RE | Rotary Erase Head |
| | REC CCNT | Rec Current Control |
| | RECCTRL | Recording Control Pulse |
| | RERASE | Rotary Erase Head |
| | RST | Reset |
| | RSTPWD | Reset Power Down Input |
| | RSTR | Reset Read |
| | RSTW | Reset Write |

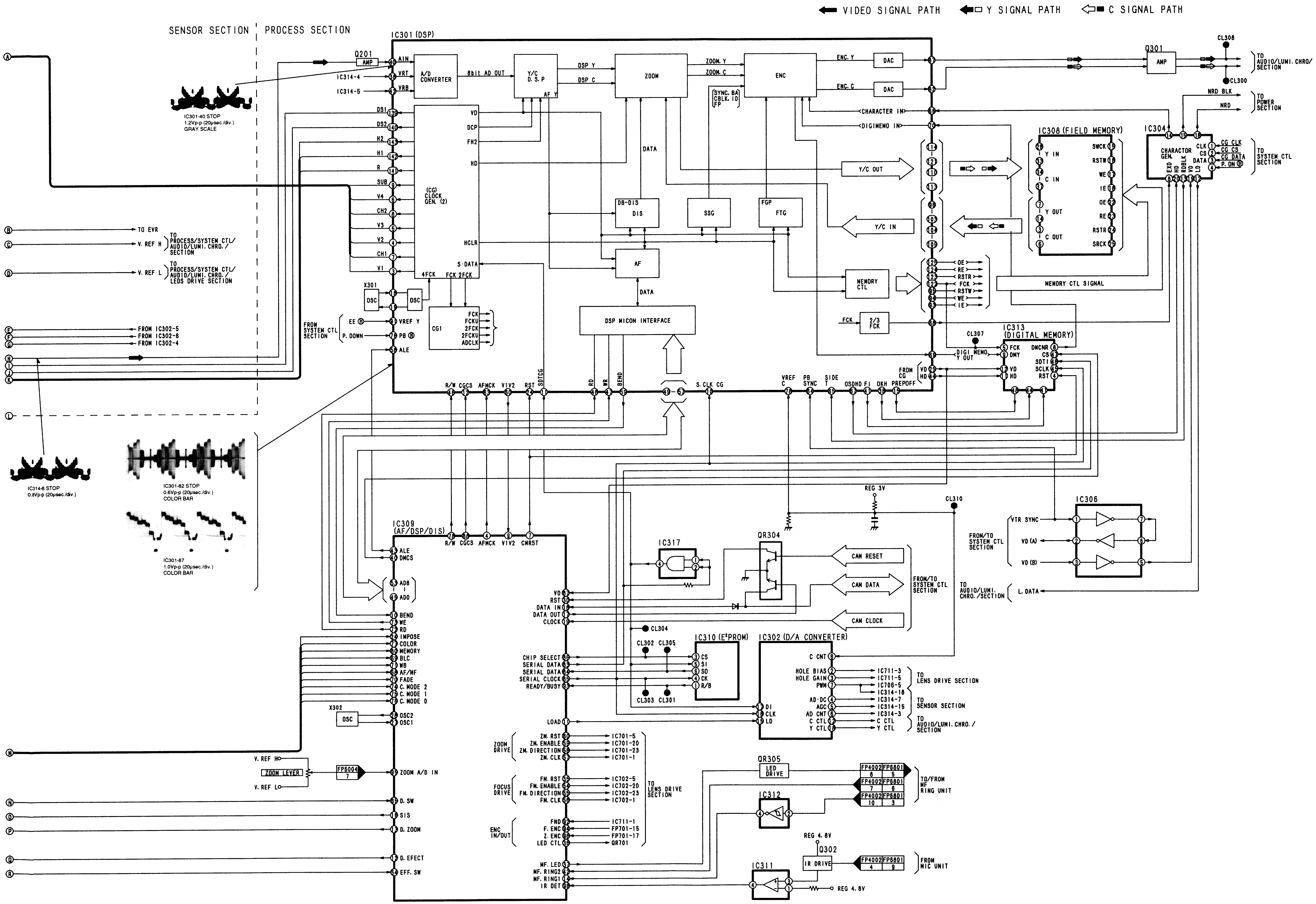
| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| R | RW | Read Write |
| | RWAE | Read Write Enable |
| S | S PHOT | Supply Photo Transistor |
| | SDET | S-VHS Detect |
| | STAB | S-VHS Tab Switch |
| | ST5V | Safety Tab 5V |
| | STAB | Safety Tab Switch |
| | SNS LED | Sensor LED |
| | SCK/SCLK | Serial Clock |
| | SBD | Serial Data |
| | SBI | Serial Data Input |
| | SBO | Serial Data Output |
| | SO | Serial Data Output |
| | SIOC | Serial In/Out Conrol |
| | SH/IRIS | SHUTTER/IRIS CONTROL |
| | S/S | Start/Stop |
| | SUB CNT | Sub Control |
| | SSG | Sync Signal Generator |
| T | T PHOT | Take-up Photo Transisitor |
| | TBC | Time Base Control |
| | TL | Torque Limit |
| | TRFIX | Tracking Fix |
| | TRIWAVE | Tracking Wave |
| | TRP | Tracking Position |
| U | U/V SEL | R-Y/B-Y Select Signal |
| | UV SEL | R-Y/B-Y Select Signal |
| V | V1-V4 | V. CCD Drive Pule |
| | VB | VH Filter Switching |
| | VCO | Voltage Control Oscillator |
| | VCP | Shift Clock Output for Vertical Drive |
| | VCTRL | Voltage Charge Control |
| | VD | Vertical Drive Pulse |
| | VDREC | Video Delayed Rec |
| | VIN | Video In |
| | VITC | Vertical Interval Time Code |
| | VL | Low Voltage |
| | VM | Motor Voltage |
| | VMD1-3 | Electric Shutter Mode |
| | VMODE | NTSC/PAL Select Switch |
| | VMVH | VH Filter Switching |
| | VORP | Video Overlap |
| | VRB | Voltage Refference Bottom |
| | VREF1R3V | Refference Voltage 1.3V |
| | VREF3R3V | Refference Voltage 3.3V |
| | VREFH | Refference Voltage High Side |
| | VREFL | Refference Voltage Low Side |
| | VRI | Refference Voltage Input |
| | VRO | Refference Voltage Output |
| | VRT | Voltage Refference Top |
| | VSS | Vertical Sync Signal |
| W | WAD/WAE | Write Address Enable |
| | WB | White Balance |
| | WE | Write Enable |
| | WEM | Memory Write Enable |
| | WHD | Wide Horizontal Drive Pulse |
| Y | YNCST | Noize Canceller |
| | YNR | Noize Reduction |
| Z | Z. ENC | Zoom Encoder |
| | Z. MIC | Zoom Mic |
| | ZENC | Zoom Encoder Output |
| | ZMT(+)/(–) | Zoom Motor (+)/(–) |
| | ZMTER | Zoom Motor Tele Side |
| | ZMW | Zoom Motor Wide Side |

# 3-2. CAMERA BLOCK DIAGRAM

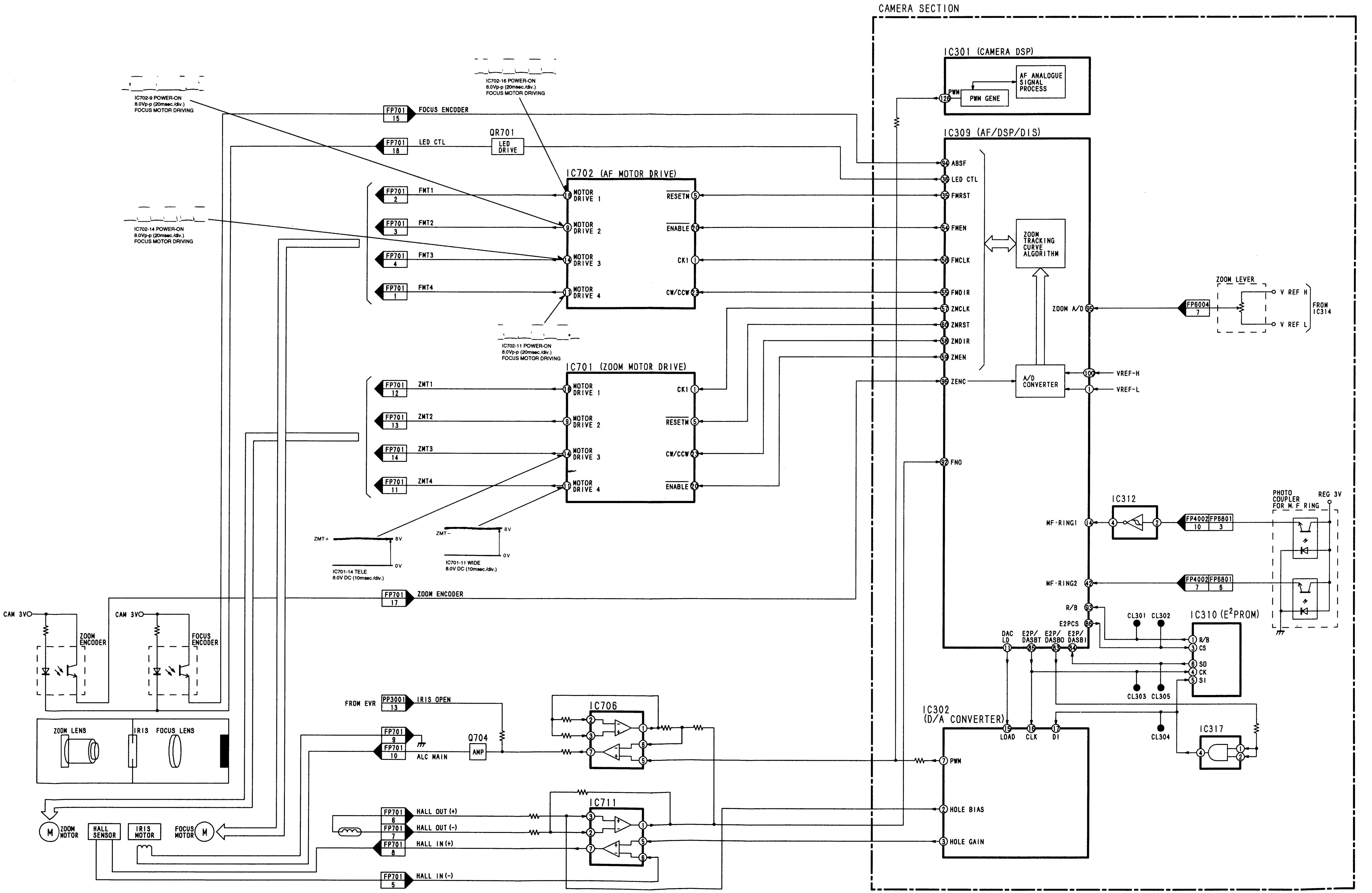

CCD ASS'Y
PS291 PP301
FROM POWER SECTION
V4
V3
V2
V1
-8V
+15V
CCD IMAGE SENSOR
H1
H2
Q291
BUFFER
IC315
(V. CCD DRIVER)
V4
CH2
V3
V2
CH1
V1
SUB
IC318
QR306
IC301-1
IC309-5
IC309-2
IC314 (CDS)
PBCK
CPOB
BIAS
SAMPLING HOLD
SAMPLING HOLD
CLP
GCA
DET
DC CTL
GCA
knee
knee-CTL
Buff
DSP2
DSP1
OBCNT
DCCNT
ADOUT
ADCNT
AGCCNT
H2
H1
R
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
SENSOR SECTION
PROCESS SECTION
PP301-1 (CKJ1) STOP
1.0Vp-p (20μsec,/div.)
GRAY SCALE
PP301-3 (CKJ3)
24Vp-p (5msec./div.)
AE: SPORTS MODE (0.2msec./div.)
(0.2msec./div.)
PP301-4 (CKJ4) STOP
6.5Vp-p (20μsec./div.)
GRAY SCALE
PP301-5 (CKJ5) STOP
6.5Vp-p (20μsec./div.)
GRAY SCALE
PP301-6 (CKJ6) STOP
7.0Vp-p (20μsec./div.)
V1 22Vp-p
PP301-11
(CKG11)
V2 8Vp-p
PP301-10
(CKG10)
V3 22Vp-p
PP301-9
(CKG9)
V4 8Vp-p
PP301-8
(CKG8)
AE: AUTO MODE (5msec./div.)
CAMERA/VTR OPERATION UNIT
ON/OFF
COLOR
STORE
BACKLIGHT
W.B
FOCUS
FADE
FP6006
IMPOSE
COLOR
MEMORY
BL
WB
AF/MF
FADE
C. MODE 2
C. MODE 1
C. MODE 0
AUTO
MANUAL
SPORTS
PORTRAIT
LOW LIGHT
DIGITAL OPERATION UNIT
SUPER IMAGE STABILIZER INDICATION LAMP
D. MODE
D. ZOOM INDICATION LAMP
D. EFECT LED INDICATION LAMP
D. EFECT
FP6003
QR303
LED DRIVE
QR303
LED DRIVE
QR302
LED DRIVE

| | D0 | D1 | D2 |
|---|---|---|---|
| AUTO | H | H | H |
| MANUAL | L | H | H |
| SPORTS | L | L | H |
| PORTRAIT | H | L | H |
| LOW LIGHT | H | L | L |

H:OPEN
L:CONNECT WITH COMMON TERMINAL (GND)

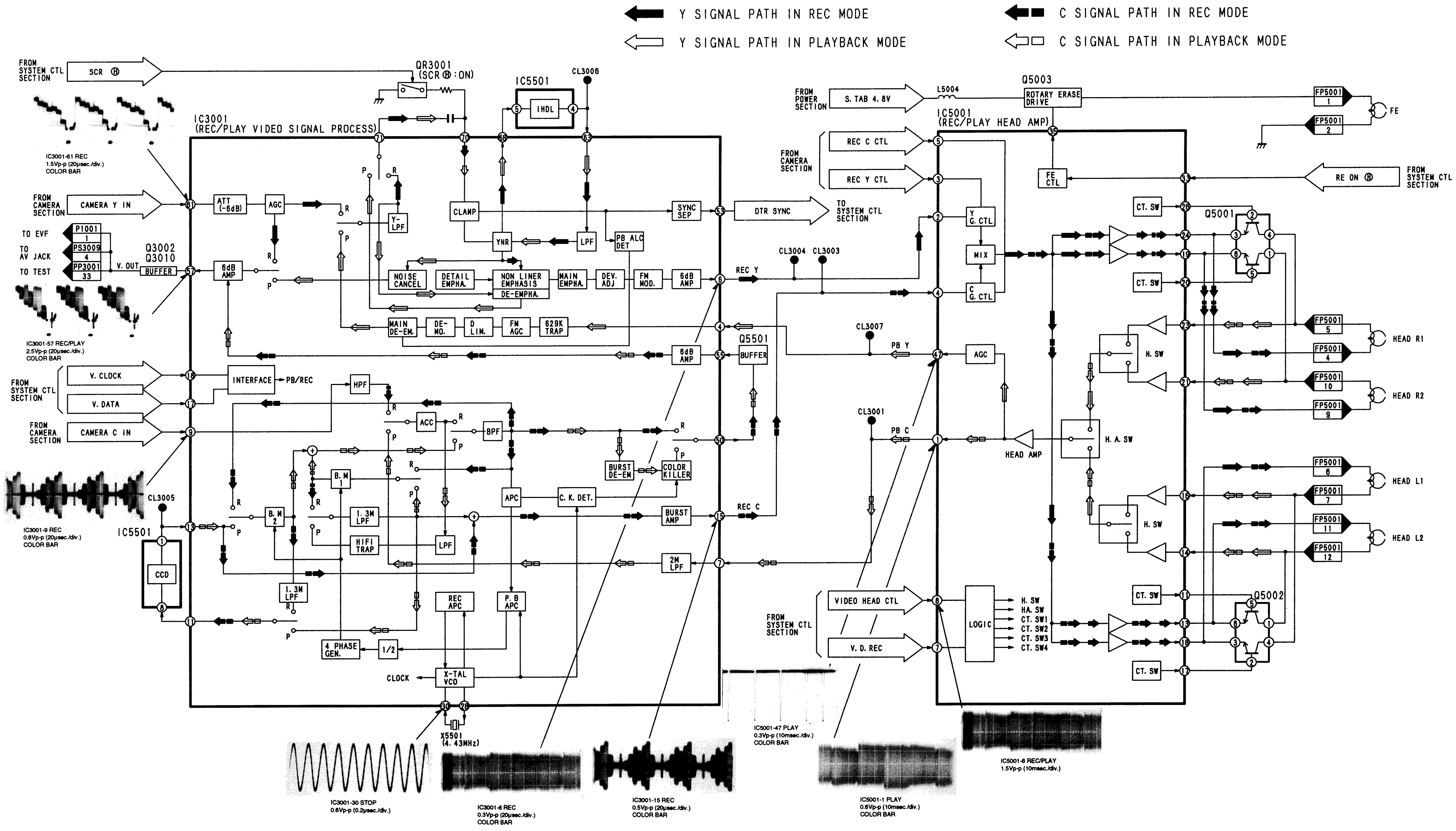

VIDEO SIGNAL PATH
Y SIGNAL PATH
C SIGNAL PATH
SENSOR SECTION
PROCESS SECTION
IC301 (DSP)
Q201 AMP
A/D CONVERTER
8bit AD OUT
Y/C D.S.P
DSP Y
DSP C
ZOOM
ZOOM.Y
ZOOM.C
ENC
ENC.Y
ENC.C
DAC
(CG) CLOCK GEN. (2)
DB-DIS DIS
SSG
FGP FTG
AF
DATA
DSP MICON INTERFACE
MEMORY CTL
2/3 FCK
Y/C OUT
Y/C IN
CHARACTER IN
DIGIMEMO IN
SYNC. BA CBLK. ID FP
IC301-40 STOP 1.2Vp-p (20μsec./div.) GRAY SCALE
IC314-8 STOP 0.8Vp-p (20μsec./div.)
IC301-82 STOP 0.6Vp-p (20μsec./div.) COLOR BAR
IC301-87 1.0Vp-p (20μsec./div.) COLOR BAR
TO EVR
V. REF H
V. REF L
TO PROCESS/SYSTEM CTL/ AUDIO/LUMI. CHRO./ SECTION
TO PROCESS/SYSTEM CTL/ AUDIO/LUMI. CHRO./ LEDS DRIVE SECTION
FROM IC302-5
FROM IC302-6
FROM IC302-4
X301 OSC
CG1
FROM SYSTEM CTL SECTION
Q301 AMP
CL308
CL300
TO AUDIO/LUMI. CHRO/ SECTION
NRD BLK
NRD
TO POWER SECTION
IC308 (FIELD MEMORY)
IC304 CHARACTOR GEN.
CG CLK
CG CS
CG DATA
P. ON
TO SYSTEM CTL SECTION
MEMORY CTL SIGNAL
IC313 (DIGITAL MEMORY)
CL307
DIGI MEMO. Y OUT
IC306
VTR SYNC
VD (A)
VD (B)
FROM/TO SYSTEM CTL SECTION
TO AUDIO/LUMI. CHRO./SECTION
L. DATA
IC309 (AF/DSP/DIS)
X302 OSC
IC317
QR304
CAM RESET
CAM DATA
CAM CLOCK
FROM/TO SYSTEM CTL SECTION
REG 3V
CL310
CL304
CL302 CL305
CL303 CL301
IC310 (E²PROM)
IC302 (D/A CONVERTER)
TO LENS DRIVE SECTION
TO SENSOR SECTION
TO AUDIO/LUMI. CHRO./ SECTION
ZOOM DRIVE
FOCUS DRIVE
ENC IN/OUT
TO LENS DRIVE SECTION
QR305 LED DRIVE
IC312
IC311
REG 4.8V
Q302 IR DRIVE
FP4002 FP6801
TO/FROM MF RING UNIT
FROM MIC UNIT
V. REF H
ZOOM LEVER
FP6004
V. REF L

# 3-3. LENS DRIVE BLOCK DIAGRAM

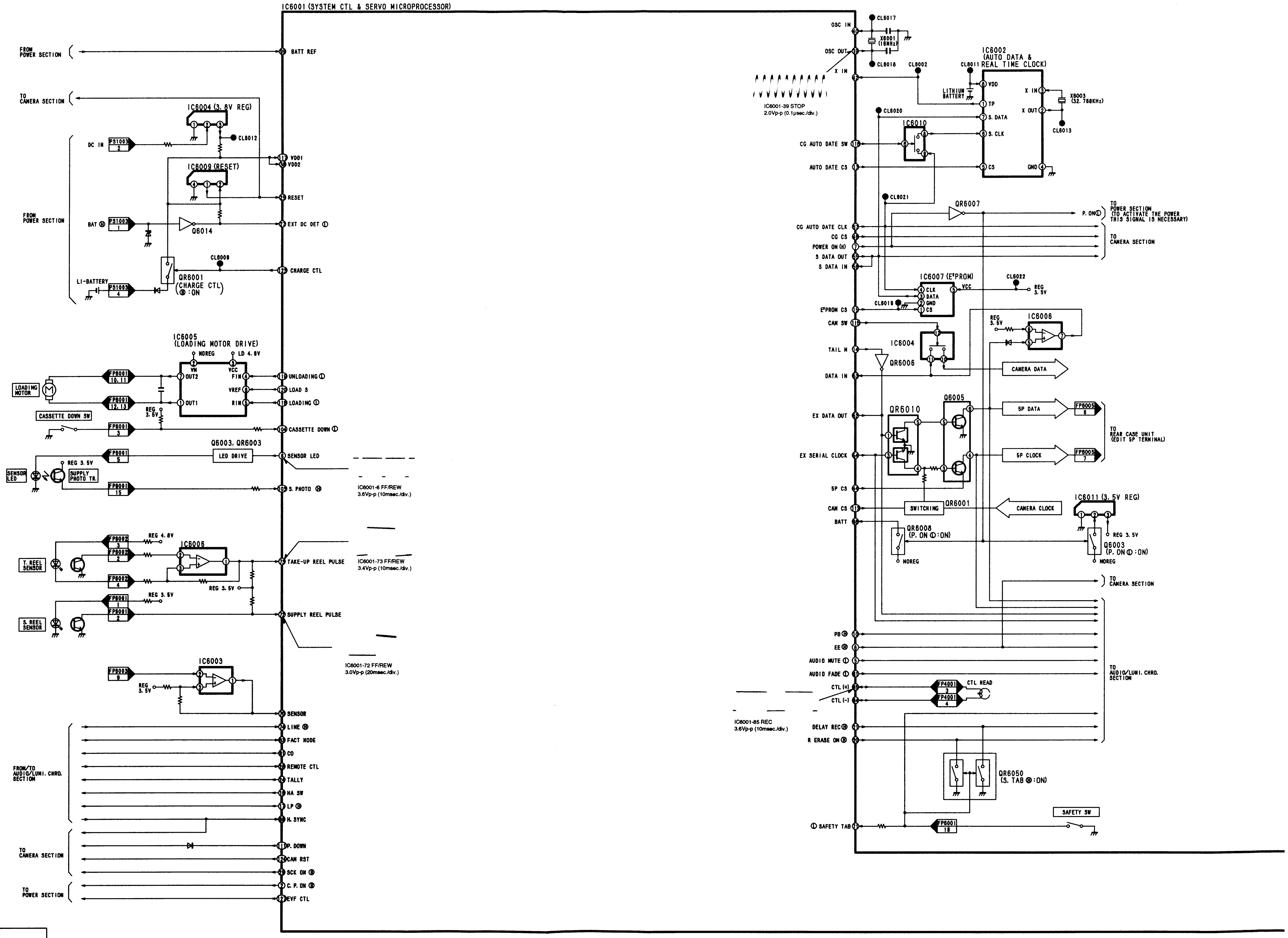

CAMERA SECTION
IC301 (CAMERA DSP)
AF ANALOGUE SIGNAL PROCESS
PWM
PWM GENE
126
IC309 (AF/DSP/DIS)
94 ABSF
36 LED CTL
35 FMRST
54 FMEN
56 FMCLK
55 FMDIR
57 ZMCLK
60 ZMRST
58 ZMDIR
59 ZMEN
96 ZENC
92 FNO
ZOOM TRACKING CURVE ALGORITHM
A/D CONVERTER
ZOOM A/D 95
100 VREF-H
1 VREF-L
ZOOM LEVER
V REF H
V REF L
FROM IC314
FP6004 7
IC312
MF-RING1 14
MF-RING2 42
FP4002 10 FP6801 3
FP4002 7 FP6801 6
PHOTO COUPLER FOR M.F RING
REG 3V
R/B 63
E2PCS 66
DAC LD 11
E2P/ DASBT 85
E2P/ DASBO 83
E2P/ DASBI 84
CL301 CL302
IC310 (E$^2$PROM)
1 R/B
3 CS
6 SO
4 CK
5 SI
CL303 CL305
CL304
IC317
IC302 (D/A CONVERTER)
15 LOAD
16 CLK
17 DI
7 PWM
2 HOLE BIAS
3 HOLE GAIN
IC702-9 POWER-ON
8.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-16 POWER-ON
8.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-14 POWER-ON
8.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702-11 POWER-ON
8.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
FP701 15 FOCUS ENCODER
FP701 18 LED CTL
QR701
LED DRIVE
IC702 (AF MOTOR DRIVE)
FP701 2 FMT1
FP701 3 FMT2
FP701 4 FMT3
FP701 1 FMT4
16 MOTOR DRIVE 1
9 MOTOR DRIVE 2
14 MOTOR DRIVE 3
11 MOTOR DRIVE 4
RESETN 5
ENABLE 20
CKI 1
CW/CCW 23
IC701 (ZOOM MOTOR DRIVE)
FP701 12 ZMT1
FP701 13 ZMT2
FP701 14 ZMT3
FP701 11 ZMT4
16 MOTOR DRIVE 1
9 MOTOR DRIVE 2
14 MOTOR DRIVE 3
11 MOTOR DRIVE 4
CKI 1
RESETN 5
CW/CCW 23
ENABLE 20
ZMT+
8V
0V
IC701-14 TELE
8.0V DC (10msec./div.)
ZMT−
8V
0V
IC701-11 WIDE
8.0V DC (10msec./div.)
FP701 17 ZOOM ENCODER
CAM 3V
ZOOM ENCODER
CAM 3V
FOCUS ENCODER
ZOOM LENS
IRIS
FOCUS LENS
FROM EVR
PP3001 13 IRIS OPEN
FP701 9
FP701 10 ALC MAIN
Q704
AMP
IC706
IC711
M ZOOM MOTOR
HALL SENSOR
IRIS MOTOR
FOCUS MOTOR M
FP701 6 HALL OUT (+)
FP701 7 HALL OUT (-)
FP701 8 HALL IN (+)
FP701 5 HALL IN (-)

Back Page:
CAMERA Section

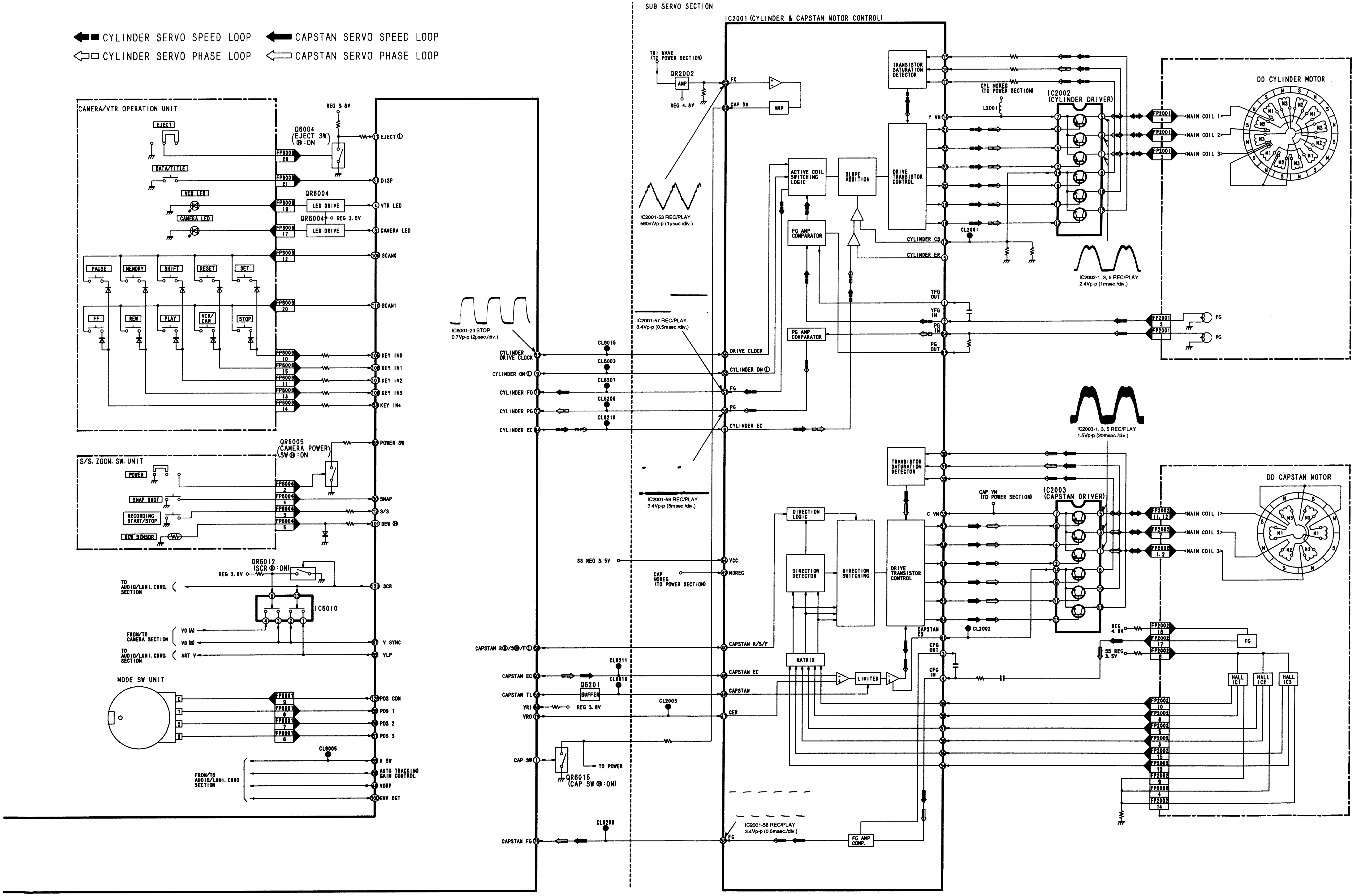
## 3-4. LUMINANCE/CHROMINANCE/HEAD AMP BLOCK DIAGRAM


Y SIGNAL PATH IN REC MODE
Y SIGNAL PATH IN PLAYBACK MODE
C SIGNAL PATH IN REC MODE
C SIGNAL PATH IN PLAYBACK MODE
FROM SYSTEM CTL SECTION
SCR Ⓗ
QR3001 (SCR Ⓗ:ON)
IC5501
IHDL
CL3006
IC3001 (REC/PLAY VIDEO SIGNAL PROCESS)
IC3001-61 REC
1.5Vp-p (20μsec./div.)
COLOR BAR
FROM CAMERA SECTION
CAMERA Y IN
TO EVF
TO AV JACK
TO TEST
P1001
1
PS3009
4
PP3001
33
V. OUT
Q3002
Q3010
BUFFER
IC3001-57 REC/PLAY
2.5Vp-p (20μsec./div.)
COLOR BAR
FROM SYSTEM CTL SECTION
V. CLOCK
V. DATA
FROM CAMERA SECTION
CAMERA C IN
CL3005
IC3001-9 REC
0.8Vp-p (20μsec./div.)
COLOR BAR
IC5501
CCD
ATT (-6dB)
AGC
Y-LPF
CLAMP
YNR
LPF
PB ALC DET
SYNC SEP
6dB AMP
NOISE CANCEL
DETAIL EMPHA.
NON LINER EMPHASIS
DE-EMPHA.
MAIN EMPHA.
DEV. ADJ
FM MOD.
6dB AMP
MAIN DE-EM.
DE-MO.
D LIM.
FM AGC
629K TRAP
6dB AMP
INTERFACE
PB/REC
HPF
ACC
BPF
B. M 1
B. M 2
1. 3M LPF
HIFI TRAP
LPF
APC
C. K. DET.
BURST DE-EM
COLOR KILLER
BURST AMP
2M LPF
1. 3M LPF
REC APC
P. B APC
4 PHASE GEN.
1/2
X-TAL VCO
CLOCK
X5501 (4. 43MHz)
Q5501
BUFFER
DTR SYNC
TO SYSTEM CTL SECTION
CL3004
CL3003
REC Y
REC C
CL3007
PB Y
CL3001
PB C
FROM POWER SECTION
S. TAB 4. 8V
L5004
Q5003
ROTARY ERASE DRIVE
IC5001 (REC/PLAY HEAD AMP)
FROM CAMERA SECTION
REC C CTL
REC Y CTL
FE CTL
FROM SYSTEM CTL SECTION
RE ON Ⓗ
FP5001
FE
Y G. CTL
MIX
C G. CTL
AGC
HEAD AMP
H. A. SW
H. SW
CT. SW
Q5001
Q5002
HEAD R1
HEAD R2
HEAD L1
HEAD L2
FROM SYSTEM CTL SECTION
VIDEO HEAD CTL
V. D. REC
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4
IC3001-30 STOP
0.6Vp-p (0.2μsec./div.)
IC3001-6 REC
0.3Vp-p (20μsec./div.)
COLOR BAR
IC3001-15 REC
0.5Vp-p (20μsec./div.)
COLOR BAR
IC5001-47 PLAY
0.3Vp-p (10msec./div.)
COLOR BAR
IC5001-1 PLAY
0.6Vp-p (10msec./div.)
COLOR BAR
IC5001-8 REC/PLAY
1.5Vp-p (10msec./div.)

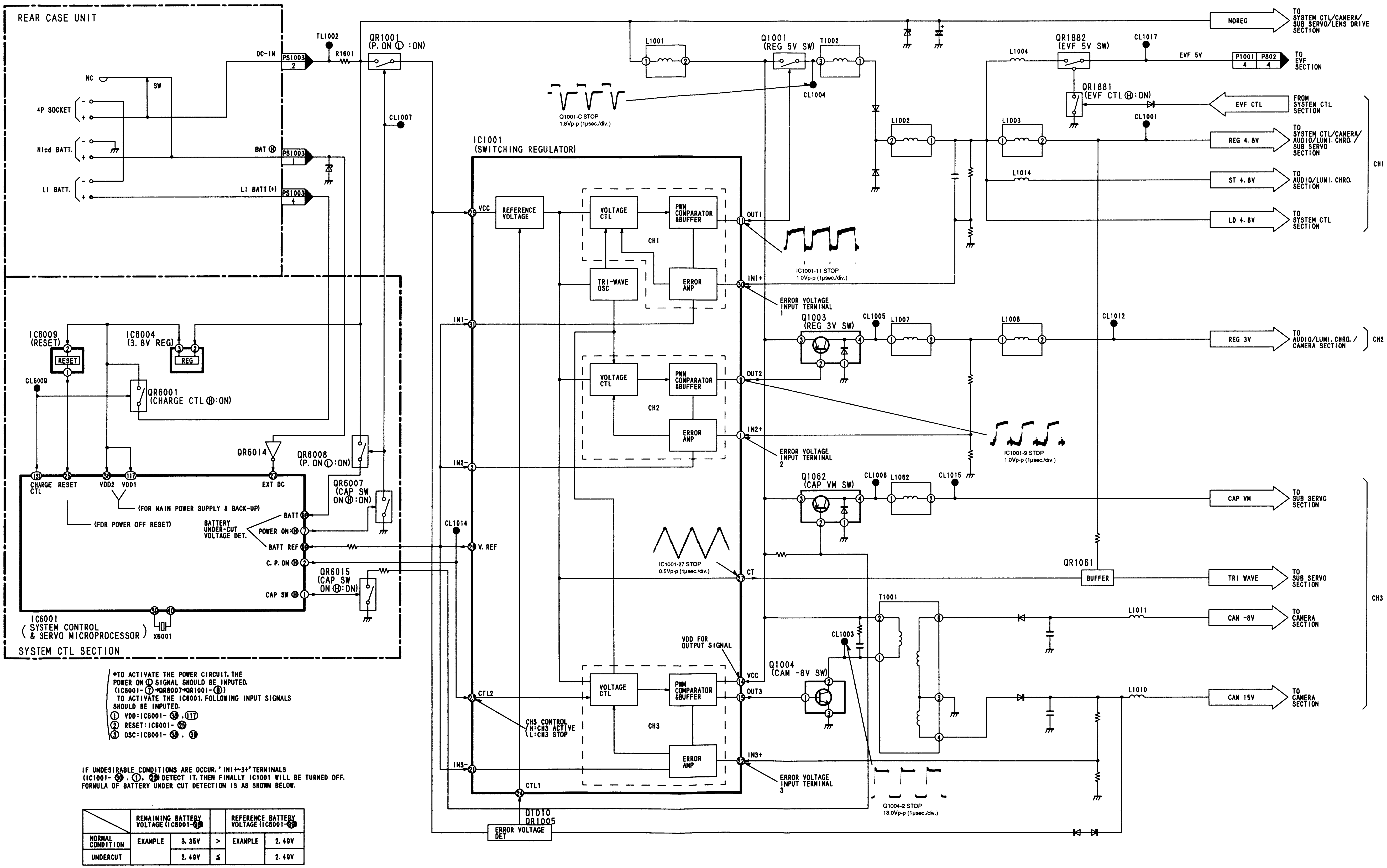
# 3-5. SYSTEM CONTROL & SERVO BLOCK DIAGRAM


IC6001 (SYSTEM CTL & SERVO MICROPROCESSOR)
FROM POWER SECTION
BATT REF
TO CAMERA SECTION
IC6004 (3.8V REG)
CL6012
DC IN
PS1003
VDD1
VDD2
IC6009 (RESET)
RESET
FROM POWER SECTION
BAT
Q6014
EXT DC DET
CL6009
CHARGE CTL
LI-BATTERY
QR6001
(CHARGE CTL)
IC6005
(LOADING MOTOR DRIVE)
NOREG
LD 4.8V
LOADING MOTOR
FP6001
OUT2
OUT1
VCC
FIN
VREF
RIN
UNLOADING
LOAD 3
LOADING
CASSETTE DOWN SW
REG 3.5V
CASSETTE DOWN
Q6003, QR6003
LED DRIVE
SENSOR LED
SUPPLY PHOTO TR.
S. PHOTO
IC6001-6 FF/REW
3.6Vp-p (10msec./div.)
T. REEL SENSOR
FP6002
REG 4.8V
IC6006
REG 3.5V
TAKE-UP REEL PULSE
IC6001-73 FF/REW
3.4Vp-p (10msec./div.)
S. REEL SENSOR
SUPPLY REEL PULSE
IC6001-72 FF/REW
3.0Vp-p (20msec./div.)
IC6003
FP6003
SENSOR
FROM/TO AUDIO/LUMI. CHRO. SECTION
LINE
FACT MODE
CO
REMOTE CTL
TALLY
HA SW
LP
H. SYNC
TO CAMERA SECTION
P. DOWN
CAM RST
SCK ON
TO POWER SECTION
C. P. ON
EVF CTL
OSC IN
OSC OUT
CL6017
X6001 (16MHz)
CL6018
CL6002
X IN
IC6001-39 STOP
2.0Vp-p (0.1μsec./div.)
IC6002
(AUTO DATA & REAL TIME CLOCK)
CL6011
LITHIUM BATTERY
VDD
TP
S. DATA
S. CLK
CS
GND
X IN
X OUT
X6003
(32.768KHz)
CL6013
CL6020
IC6010
CG AUTO DATE SW
AUTO DATE CS
CL6021
QR6007
P. ON
TO POWER SECTION
(TO ACTIVATE THE POWER THIS SIGNAL IS NECESSARY)
CG AUTO DATE CLK
CG CS
POWER ON (H)
S DATA OUT
S DATA IN
TO CAMERA SECTION
IC6007 (E²PROM)
CLK
DATA
GND
CS
VCC
CL6022
REG 3.5V
CL6019
E²PROM CS
CAM SW
IC6006
REG 3.5V
IC6004
TAIL H
QR6006
DATA IN
CAMERA DATA
EX DATA OUT
QR6010
Q6005
5P DATA
FP6005
TO REAR CASE UNIT
(EDIT 5P TERMINAL)
EX SERIAL CLOCK
5P CLOCK
5P CS
CAM CS
SWITCHING
QR6001
CAMERA CLOCK
IC6011 (3.5V REG)
BATT
QR6008
(P. ON ①:ON)
NOREG
REG 3.5V
Q6003
(P. ON ①:ON)
NOREG
TO CAMERA SECTION
PB
EE
AUDIO MUTE
AUDIO FADE
CTL (+)
CTL (-)
FP4001
CTL HEAD
TO AUDIO/LUMI. CHRO. SECTION
IC6001-85 REC
3.6Vp-p (10msec./div.)
DELAY REC
R ERASE ON
QR6050
(S. TAB Ⓗ:ON)
SAFETY SW
SAFETY TAB

Back Page:
LUMI/CHRO/H.A. Section


CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
SUB SERVO SECTION
IC2001 (CYLINDER & CAPSTAN MOTOR CONTROL)
CAMERA/VTR OPERATION UNIT
EJECT
DATA/TITLE
VCR LED
CAMERA LED
PAUSE
MEMORY
SHIFT
RESET
SET
FF
REW
PLAY
VCR/CAM
STOP
Q6004 (EJECT SW) (Ⓗ:ON)
REG 3.8V
QR6004
LED DRIVE
REG 3.5V
EJECT
DISP
VTR LED
CAMERA LED
SCAN0
SCAN1
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
POWER SW
QR6005 (CAMERA POWER) (SW Ⓗ:ON)
S/S. ZOOM. SW. UNIT
POWER
SNAP SHOT
RECORDING START/STOP
DEW SENSOR
SNAP
S/S
DEW Ⓗ
QR6012 (SCR Ⓗ:ON)
REG 3.5V
TO AUDIO/LUMI. CHRO. SECTION
SCR
IC6010
FROM/TO CAMERA SECTION
VD (A)
VD (B)
V SYNC
TO AUDIO/LUMI. CHRO. SECTION
ART V
VLP
MODE SW UNIT
POS COM
POS 1
POS 2
POS 3
CL6005
H SW
AUTO TRACKING GAIN CONTROL
VORP
ENV DET
FROM/TO AUDIO/LUMI. CHRO SECTION
IC6001-23 STOP 0.7Vp-p (2μsec./div.)
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
CYLINDER PG
CYLINDER EC
CL6015
CL6003
CL6207
CL6206
CL6210
CAPSTAN R/S/F
CAPSTAN EC
CAPSTAN TL
VRI
VRO
Q6201 BUFFER
REG 3.8V
CL6211
CL6016
CL2003
CAP SW
TO POWER
QR6015 (CAP SW Ⓗ:ON)
CL6208
CAPSTAN FG
TRI WAVE (TO POWER SECTION)
QR2002
AMP
REG 4.8V
FC
CAP SW
IC2001-53 REC/PLAY 560mVp-p (1μsec./div.)
IC2001-57 REC/PLAY 3.4Vp-p (0.5msec./div.)
IC2001-59 REC/PLAY 3.4Vp-p (5msec./div.)
IC2001-58 REC/PLAY 3.4Vp-p (0.5msec./div.)
DRIVE CLOCK
CYLINDER ON
FG
PG
CYLINDER EC
S5 REG 3.5V
VCC
CAP NOREG (TO POWER SECTION)
NOREG
CAPSTAN R/S/F
CAPSTAN EC
CAPSTAN
CER
FG
TRANSISTOR SATURATION DETECTOR
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
FG AMP COMPARATOR
PG AMP COMPARATOR
CYLINDER CS
CYLINDER ER
CL2001
YFG OUT
YFG IN
PG IN
PG OUT
Y VM
CYL NOREG (TO POWER SECTION)
L2001
IC2002 (CYLINDER DRIVER)
IC2002-1, 3, 5 REC/PLAY 2.4Vp-p (1msec./div.)
DD CYLINDER MOTOR
FP2001
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
FG
PG
IC2003-1, 3, 5 REC/PLAY 1.5Vp-p (20msec./div.)
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRIVE TRANSISTOR CONTROL
MATRIX
LIMITER
FG AMP COMP.
CAPSTAN CS
CFG OUT
CFG IN
CL2002
C VM
CAP VM (TO POWER SECTION)
IC2003 (CAPSTAN DRIVER)
DD CAPSTAN MOTOR
FP2002
REG 4.8V
S5 REG 3.5V
HALL IC1
HALL IC2
HALL IC3

## 3-6. POWER BLOCK DIAGRAM


REAR CASE UNIT
NC
SW
4P SOCKET
NIcd BATT.
LI BATT.
DC-IN
BAT ⊕
LI BATT (+)
PS1003
TL1002
R1801
QR1001 (P. ON Ⓛ :ON)
CL1007
IC6009 (RESET)
IC6004 (3.8V REG)
RESET
REG
CL6009
QR6001 (CHARGE CTL Ⓗ:ON)
QR6014
QR6008 (P. ON Ⓛ:ON)
QR6007 (CAP SW ON Ⓗ:ON)
CHARGE CTL
RESET
VDD2
VDD1
EXT DC
(FOR MAIN POWER SUPPLY & BACK-UP)
(FOR POWER OFF RESET)
BATTERY UNDER-CUT VOLTAGE DET.
BATT
POWER ON
BATT REF
C. P. ON
CAP SW
QR6015 (CAP SW ON Ⓗ:ON)
IC6001 (SYSTEM CONTROL & SERVO MICROPROCESSOR)
X6001
SYSTEM CTL SECTION
IC1001 (SWITCHING REGULATOR)
VCC
REFERENCE VOLTAGE
VOLTAGE CTL
PWM COMPARATOR &BUFFER
TRI-WAVE OSC
ERROR AMP
CH1
CH2
CH3
OUT1
IN1+
IN1-
OUT2
IN2+
IN2-
CT
V. REF
CL1014
CTL2
IN3-
IN3+
OUT3
CTL1
VDD FOR OUTPUT SIGNAL
CH3 CONTROL H:CH3 ACTIVE L:CH3 STOP
ERROR VOLTAGE INPUT TERMINAL 1
ERROR VOLTAGE INPUT TERMINAL 2
ERROR VOLTAGE INPUT TERMINAL 3
Q1001-C STOP 1.8Vp-p (1μsec./div.)
IC1001-11 STOP 1.0Vp-p (1μsec./div.)
IC1001-9 STOP 1.0Vp-p (1μsec./div.)
IC1001-27 STOP 0.5Vp-p (1μsec./div.)
Q1004-2 STOP 13.0Vp-p (1μsec./div.)
L1001
Q1001 (REG 5V SW)
T1002
CL1004
L1002
L1003
L1014
L1004
QR1882 (EVF 5V SW)
CL1017
QR1881 (EVF CTL Ⓗ:ON)
CL1001
EVF 5V
P1001 P802
Q1003 (REG 3V SW)
CL1005
L1007
L1008
CL1012
Q1062 (CAP VM SW)
CL1006
L1062
CL1015
QR1061
BUFFER
T1001
CL1003
Q1004 (CAM -8V SW)
L1011
L1010
Q1010 QR1005
ERROR VOLTAGE DET
NOREG
TO SYSTEM CTL/CAMERA/ SUB SERVO/LENS DRIVE SECTION
TO EVF SECTION
EVF CTL
FROM SYSTEM CTL SECTION
REG 4.8V
TO SYSTEM CTL/CAMERA/ AUDIO/LUMI. CHRO./ SUB SERVO SECTION
ST 4.8V
TO AUDIO/LUMI. CHRO. SECTION
LD 4.8V
TO SYSTEM CTL SECTION
CH1
REG 3V
TO AUDIO/LUMI. CHRO./ CAMERA SECTION
CH2
CAP VM
TO SUB SERVO SECTION
TRI WAVE
TO SUB SERVO SECTION
CAM -8V
TO CAMERA SECTION
CAM 15V
TO CAMERA SECTION
CH3

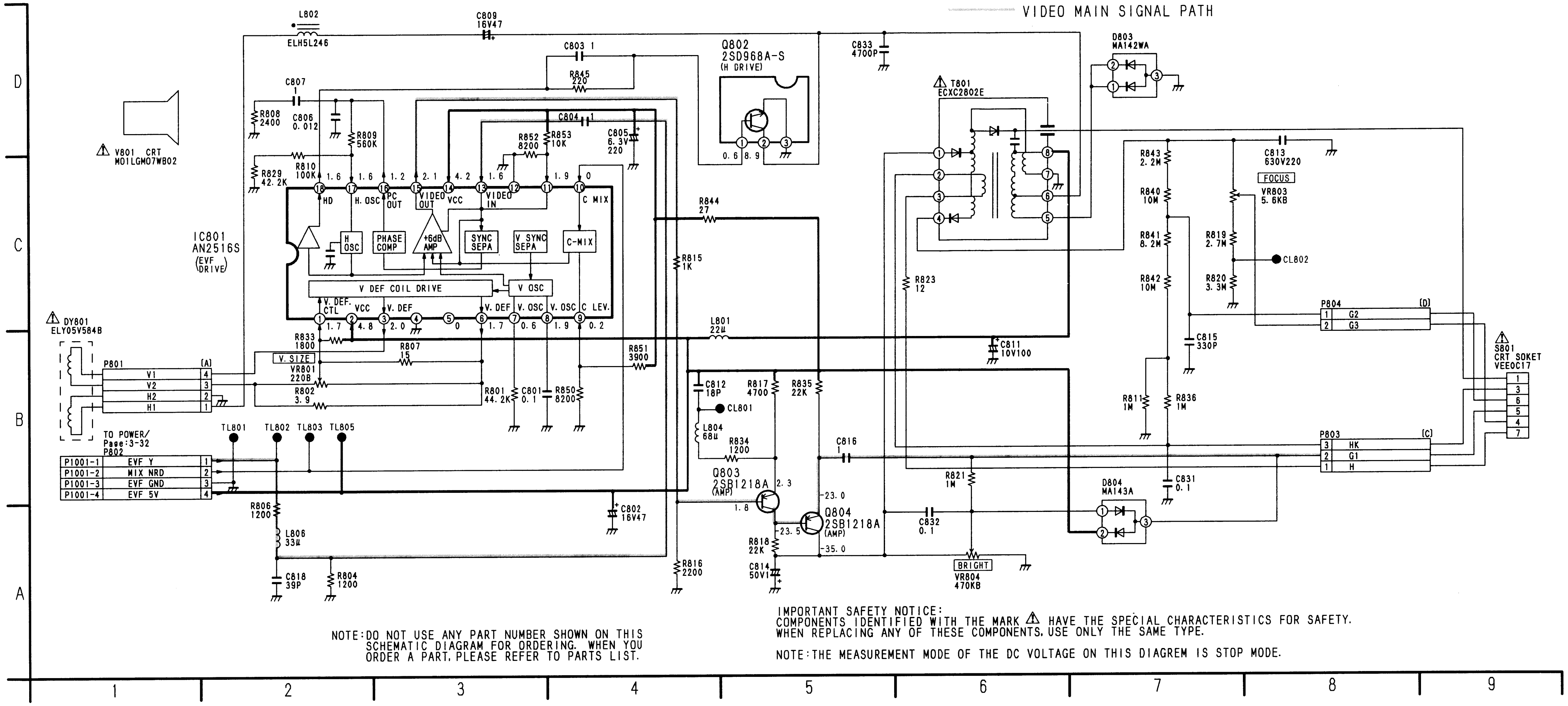
•TO ACTIVATE THE POWER CIRCUIT, THE POWER ON Ⓛ SIGNAL SHOULD BE INPUTED.
(IC6001-⑦→QR6007→QR1001-⑧)
TO ACTIVATE THE IC6001, FOLLOWING INPUT SIGNALS SHOULD BE INPUTED.
① VDD:IC6001-㊱, (117)
② RESET:IC6001-㉕
③ OSC:IC6001-㊳, ㊴

IF UNDESIRABLE CONDITIONS ARE OCCUR, 'IN1+~3+' TERMINALS (IC1001-㉚, ①, ㉒) DETECT IT, THEN FINALLY IC1001 WILL BE TURNED OFF.
FORMULA OF BATTERY UNDER CUT DETECTION IS AS SHOWN BELOW.

| | REMAINING BATTERY VOLTAGE (IC6001-(98)) | | | REFERENCE BATTERY VOLTAGE (IC6001-(99)) | |
|---|---|---|---|---|---|
| NORMAL CONDITION | EXAMPLE | 3.35V | > | EXAMPLE | 2.49V |
| UNDERCUT | | 2.49V | ≤ | | 2.49V |

Back Page:
SYSTEM CTL & SERVO Section

## 3-7. EVF SCHEMATIC DIAGRAM

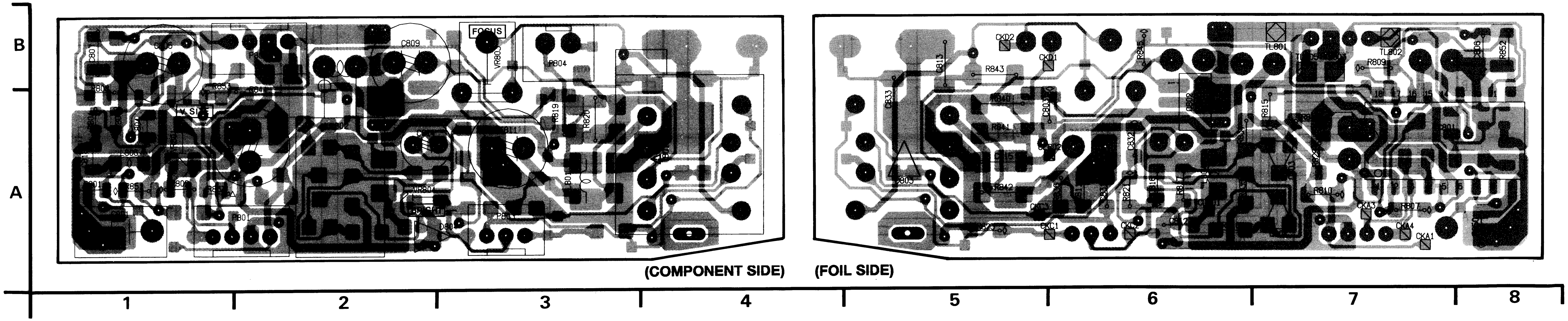

VIDEO MAIN SIGNAL PATH
V801 CRT M01LGM07WB02
IC801 AN2516S (EVF DRIVE)
DY801 ELY05V584B
L802 ELH5L246
C809 16V47
C803 1
R845 220
Q802 2SD968A-S (H DRIVE)
C833 4700P
D803 MA142WA
T801 ECXC2802E
C807 1
R808 2400
C806 0.012
R809 560K
R810 100K
R829 42.2K
C804 1
R852 8200
R853 10K
C805 6.3V 220
HD
H.OSC
PC OUT
VIDEO OUT
VCC
VIDEO IN
C MIX
H OSC
PHASE COMP
+6dB AMP
SYNC SEPA
V SYNC SEPA
C-MIX
V DEF COIL DRIVE
V OSC
V.DEF. CTL
V.DEF
V.OSC
C LEV.
R844 27
R815 1K
R843 2.2M
C813 630V220
FOCUS
VR803 5.6KB
R840 10M
R841 8.2M
R819 2.7M
CL802
R842 10M
R820 3.3M
R823 12
P804
G2
G3
C815 330P
C811 10V100
L801 22µ
R833 1800
V.SIZE
VR801 220B
R807 15
R851 3900
R802 3.9
R801 44.2K
C801 0.1
R850 8200
P801
V1
V2
H2
H1
[A]
[B]
[C]
[D]
C812 18P
R817 4700
R835 22K
CL801
L804 68µ
R834 1200
C816 1
S801 CRT SOKET VEE0C17
R811 1M
R836 1M
P803
HK
G1
H
TO POWER/ Page:3-32 P802
TL801
TL802
TL803
TL805
P1001-1 EVF Y
P1001-2 MIX NRD
P1001-3 EVF GND
P1001-4 EVF 5V
Q803 2SB1218A (AMP)
Q804 2SB1218A (AMP)
R821 1M
C831 0.1
D804 MA143A
C832 0.1
R806 1200
C802 16V47
L806 33µ
R818 22K
C814 50V1
BRIGHT
VR804 470KB
C818 39P
R804 1200
R816 2200
1 2 3 4 5 6 7 8 9
A B C D

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGREM IS STOP MODE.

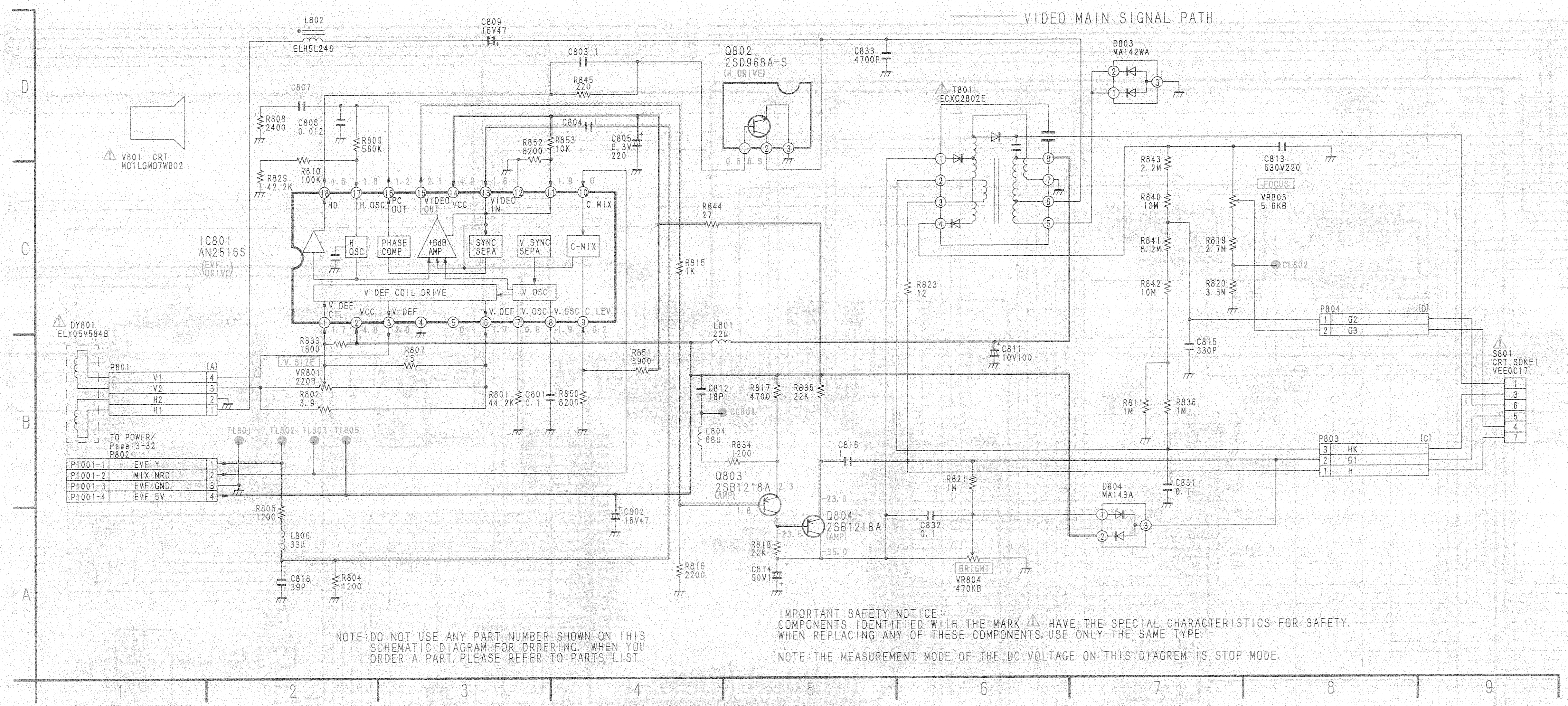
## 3-8. EVF C.B.A. (VEP28253A)


FOCUS
C809
VR803
R804
R819
R820
V.SIZE
R843
R813
C833
CKD2
CKD1
TL801
TL802
R809
R810
R807
CKA1
CKA3
CKA4
R815
R842
1 2 3 4 5 6 7 8
A B

(COMPONENT SIDE)

(FOIL SIDE)

# 3-7. EVF SCHEMATIC DIAGRAM

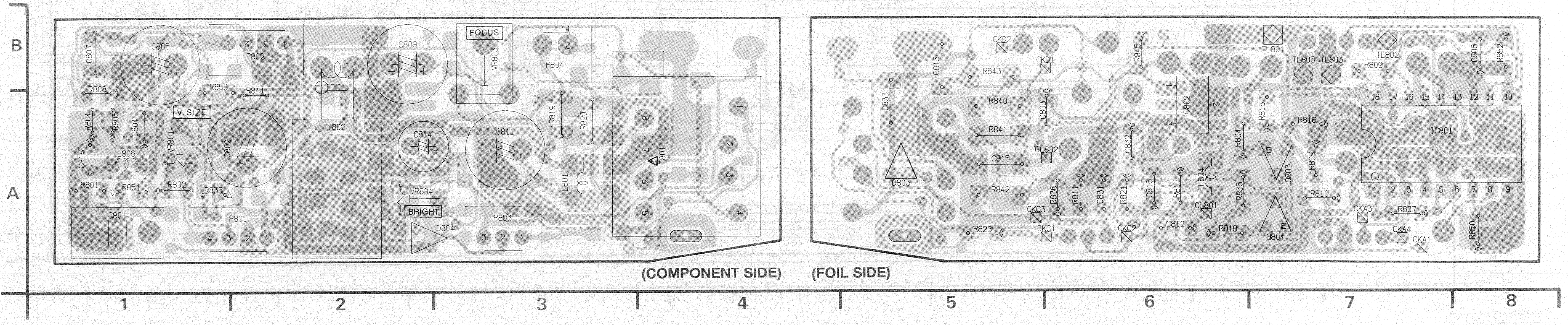

VIDEO MAIN SIGNAL PATH
L802
ELH5L246
C809
16V47
C803 1
Q802
2SD968A-S
(H DRIVE)
C833
4700P
D803
MA142WA
T801
ECXC2802E
C807
R808
2400
C806
0.012
R809
560K
R845
220
C804
R852
8200
R853
10K
C805
6.3V
220
V801 CRT
MD1LGM07WB02
R829
42.2K
R810
100K
HD
H.OSC
PC OUT
VIDEO OUT
VCC
VIDEO IN
C MIX
H OSC
PHASE COMP
+6dB AMP
SYNC SEPA
V SYNC SEPA
C-MIX
V DEF COIL DRIVE
V OSC
V.DEF. CTL
VCC
V.DEF
V.DEF
V.OSC
V.OSC
C LEV.
IC801
AN2516S
(EVF DRIVE)
R844
27
R815
1K
R843
2.2M
C813
630V220
FOCUS
VR803
5.6KB
R840
10M
R841
8.2M
R819
2.7M
CL802
R842
10M
R820
3.3M
R823
12
DY801
ELY05V584B
R833
1800
V.SIZE
VR801
220B
R807
15
R851
3900
L801
22μ
C811
10V100
C815
330P
P804
G2
G3
[D]
S801
CRT SOKET
VEE0C17
P801
V1
V2
H2
H1
[A]
R802
3.9
R801
44.2K
C801
0.1
R850
8200
C812
18P
R817
4700
R835
22K
R811
1M
R836
1M
CL801
TO POWER/
Page:3-32
P802
TL801
TL802
TL803
TL805
L804
68μ
R834
1200
C816
1
P803
HK
G1
H
[C]
P1001-1
P1001-2
P1001-3
P1001-4
EVF Y
MIX NRD
EVF GND
EVF 5V
Q803
2SB1218A
(AMP)
R821
1M
C831
0.1
D804
MA143A
R806
1200
C802
16V47
Q804
2SB1218A
(AMP)
C832
0.1
L806
33μ
R818
22K
C814
50V1
R816
2200
BRIGHT
VR804
470KB
C818
39P
R804
1200
D
C
B
A
1
2
3
4
5
6
7
8
9

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

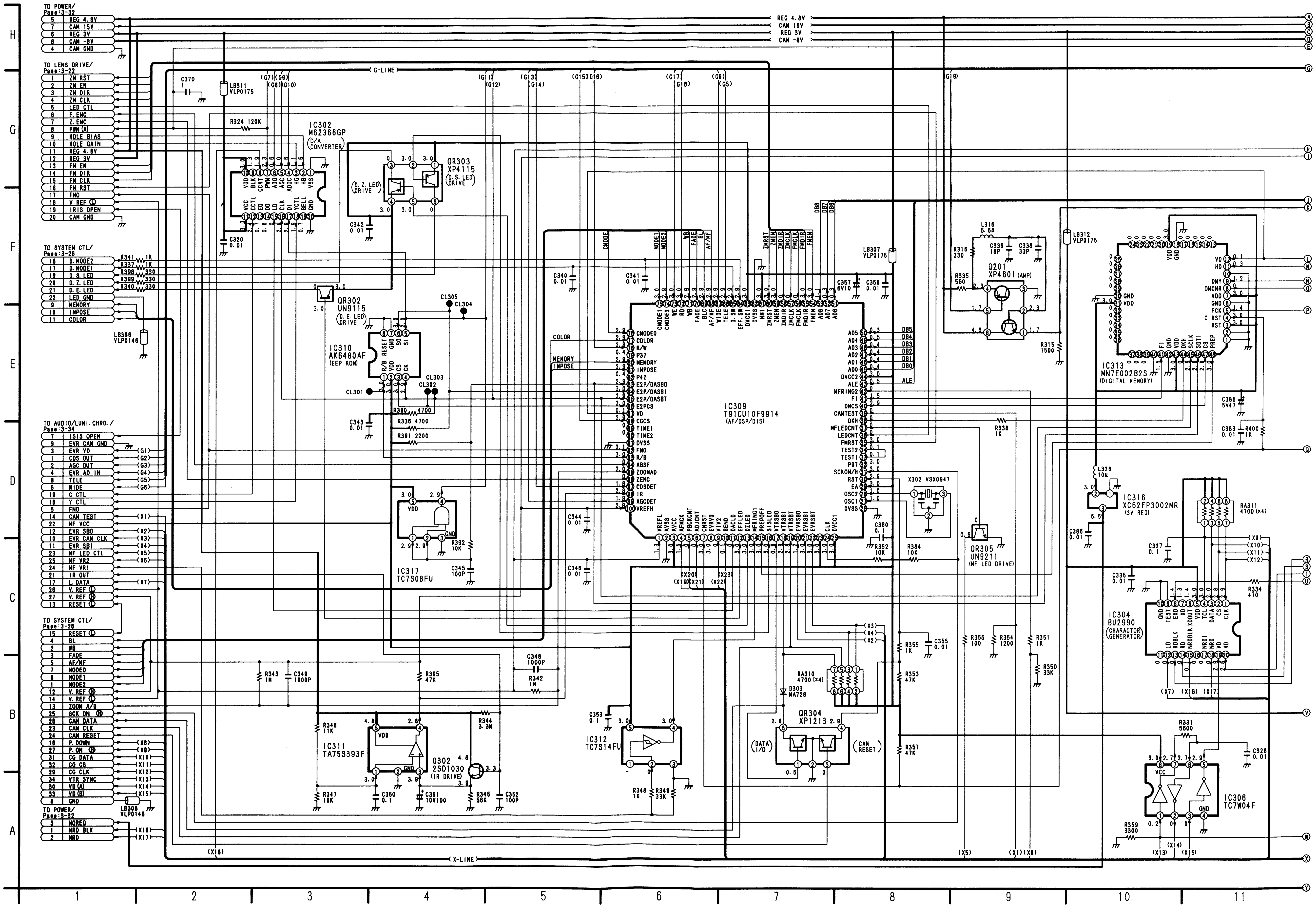
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGREM IS STOP MODE.

# 3-8. EVF C.B.A. (VEP28253A)

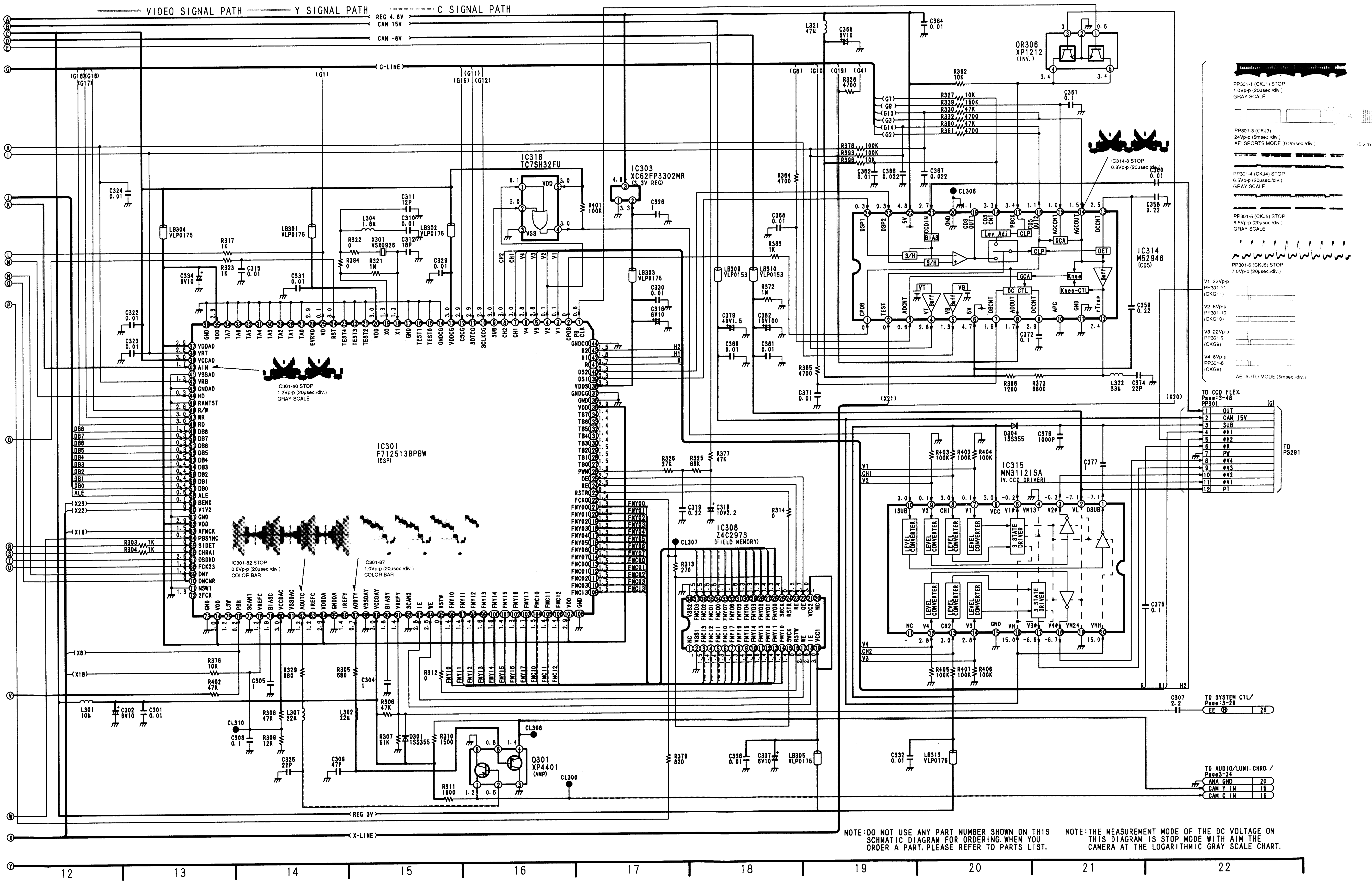

B
A
C807
C805
P802
C809
FOCUS
VR803
P804
R808
R853
R844
V.SIZE
R804
R806
C804
VR801
C802
L802
C814
C811
R819
R820
T801
L801
C818
L806
R801
R851
R802
R833
VR804
BRIGHT
C801
P801
D804
P803
CKD2
CKD1
C813
R843
R845
TL801
TL805
TL803
R809
TL802
C806
R852
C833
R840
C803
Q802
R815
R816
IC801
R841
C832
R834
Q803
R829
C815
CL802
D803
R842
R836
R811
C831
R821
C816
R817
L804
R835
R810
CKC3
CKC1
CKC2
R823
CL801
C812
R818
Q804
CKA3
R807
CKA4
CKA1
R850
1
2
3
4
5
6
7
8

(COMPONENT SIDE) (FOIL SIDE)

# 3-9. CAMERA SCHEMATIC DIAGRAM


TO POWER/ Page:3-32
REG 4.8V
CAM 15V
REG 3V
CAM -8V
CAM GND
TO LENS DRIVE/ Page:3-22
ZM RST
ZM EN
ZM DIR
ZM CLK
LED CTL
F. ENC
Z. ENC
PWM (A)
HOLE BIAS
HOLE GAIN
FM EN
FM DIR
FM CLK
FM RST
FMO
V REF
IRIS OPEN
TO SYSTEM CTL/ Page:3-26
D. MODE2
D. MODE1
D. S. LED
D. Z. LED
D. E. LED
LED GND
MEMORY
IMPOSE
COLOR
TO AUDIO/LUMI. CHRO./ Page:3-34
EVR CAM GND
EVR VD
CDS OUT
AGC OUT
EVR AD IN
TELE
WIDE
C CTL
Y CTL
CAM TEST
MF VCC
EVR SBO
EVR CAM CLK
EVR SBI
MF LED CTL
MF VR2
MF VR1
IR OUT
L DATA
RESET
BL
WB
FADE
AF/MF
MODEO
ZOOM A/D
SCK ON
CAM DATA
CAM CLK
CAM RESET
P. DOWN
P. ON
CG DATA
CG CS
CG CLK
VTR SYNC
VD (A)
VD (B)
GND
NOREG
NRD BLK
NRD
G-LINE
X-LINE
IC302 M62366GP (D/A CONVERTER)
QR303 XP4115 (D. S. LED DRIVE)
(D. Z. LED DRIVE)
QR302 UN9115 (D. E. LED DRIVE)
IC310 AK6480AF (EEP ROM)
IC317 TC7S08FU
IC309 T91CU10F9914 (AF/DSP/DIS)
IC311 TA75S393F
Q302 2SD1030 (IR DRIVE)
IC312 TC7S14FU
QR304 XP1213 (DATA I/O) (CAM RESET)
QR305 UN9211 (MF LED DRIVE)
X302 VSX0947
Q201 XP4601 (AMP)
L316 5.6μ
IC313 MN7E002B2S (DIGITAL MEMORY)
IC316 XC62FP3002MR (3V REG)
IC304 BU2990 (CHARACTOR GENERATOR)
IC306 TC7W04F
RA311 4700 (×4)
RA310 4700 (×4)
D303 MA728
LB311 VLP0175
LB307 VLP0175
LB312 VLP0175
LB306 VLP0146
LB308 VLP0146
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

Back Page:
EVF Section

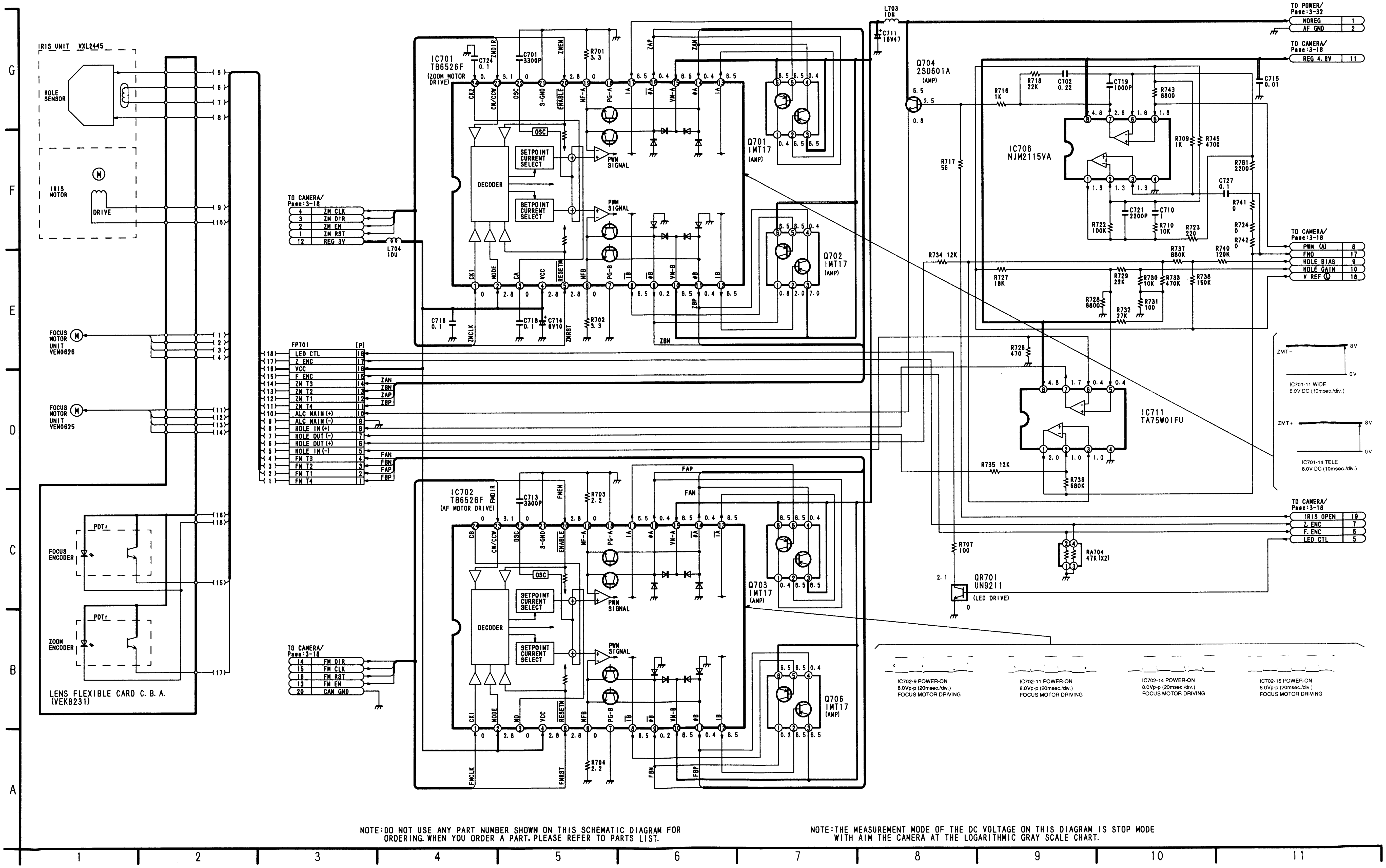


VIDEO SIGNAL PATH
Y SIGNAL PATH
C SIGNAL PATH
REG 4.8V
CAM 15V
CAM -8V
G-LINE
REG 3V
X-LINE
IC301
F712513BPBW
(DSP)
IC318
TC7SH32FU
IC303
XC62FP3302MR
(3.3V REG)
IC314
M52948
(CDS)
IC315
MN31121SA
(V. CCD DRIVER)
IC308
Z4C2973
(FIELD MEMORY)
QR306
XP1212
(INV.)
Q301
XP4401
(AMP)
IC301-40 STOP
1.2Vp-p (20μsec./div.)
GRAY SCALE
IC301-82 STOP
0.6Vp-p (20μsec./div.)
COLOR BAR
IC301-87
1.0Vp-p (20μsec./div.)
COLOR BAR
IC314-8 STOP
0.8Vp-p (20μsec./div.)
PP301-1 (CKJ1) STOP
1.0Vp-p (20μsec./div.)
GRAY SCALE
PP301-3 (CKJ3)
24Vp-p (5msec./div.)
AE: SPORTS MODE (0.2msec./div.)
(0.2msec./div.)
PP301-4 (CKJ4) STOP
6.5Vp-p (20μsec./div.)
GRAY SCALE
PP301-5 (CKJ5) STOP
6.5Vp-p (20μsec./div.)
GRAY SCALE
PP301-6 (CKJ6) STOP
7.0Vp-p (20μsec./div.)
V1 22Vp-p
PP301-11
(CKG11)
V2 8Vp-p
PP301-10
(CKG10)
V3 22Vp-p
PP301-9
(CKG9)
V4 8Vp-p
PP301-8
(CKG8)
AE: AUTO MODE (5msec./div.)
TO CCD FLEX.
Page:3-46
PP301
1 OUT
2 CAM 15V
3 SUB
4 ϕH1
5 ϕH2
6 ϕR
7 PW
8 ϕV4
9 ϕV3
10 ϕV2
11 ϕV1
12 PT
TO PS291
TO SYSTEM CTL/
Page:3-26
EE ⓓ 26
TO AUDIO/LUMI.CHRO./
Page:3-34
ANA GND 20
CAM Y IN 15
CAM C IN 16
12
13
14
15
16
17
18
19
20
21
22

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

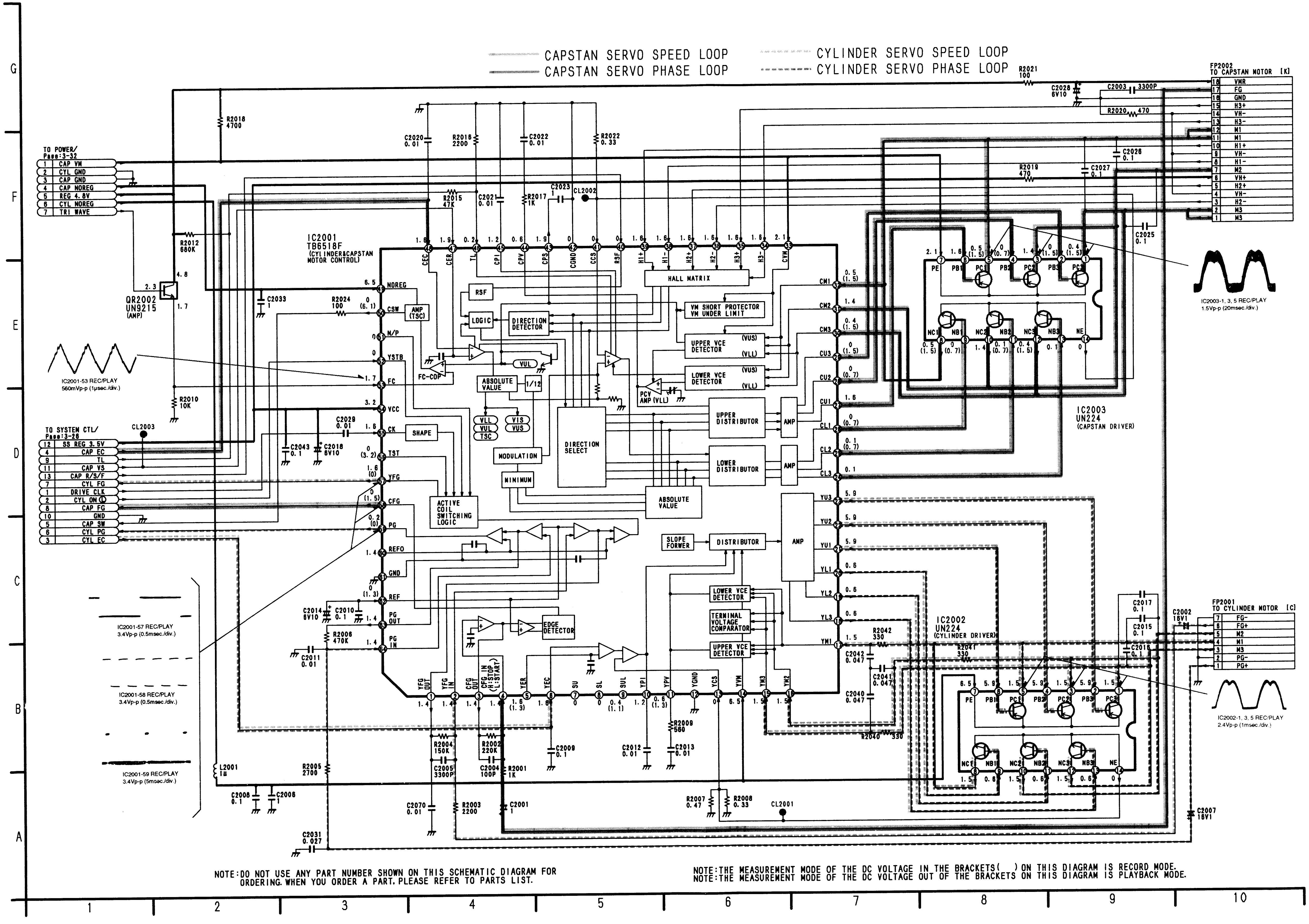
# 3-10. LENS DRIVE SCHEMATIC DIAGRAM


IRIS UNIT VXL2445
HOLE SENSOR
IRIS MOTOR
DRIVE
FOCUS MOTOR UNIT VEM0626
FOCUS MOTOR UNIT VEM0625
FOCUS ENCODER
ZOOM ENCODER
PDTr
LENS FLEXIBLE CARD C. B. A. (VEK8231)
TO CAMERA/ Page:3-18
ZM CLK
ZM DIR
ZM EN
ZM RST
REG 3V
L704 10U
FP701
LED CTL
Z ENC
VCC
F ENC
ZM T3
ZM T2
ZM T1
ZM T4
ALC MAIN (+)
ALC MAIN (-)
HOLE IN (+)
HOLE OUT (-)
HOLE OUT (+)
HOLE IN (-)
FM T3
FM T2
FM T1
FM T4
FM DIR
FM CLK
FM RST
FM EN
CAM GND
IC701 TB6526F (ZOOM MOTOR DRIVE)
IC702 TB6526F (AF MOTOR DRIVE)
DECODER
SETPOINT CURRENT SELECT
OSC
PWM SIGNAL
Q701 IMT17 (AMP)
Q702 IMT17 (AMP)
Q703 IMT17 (AMP)
Q706 IMT17 (AMP)
L703 10H
C711 16V47
Q704 2SD601A (AMP)
IC706 NJM2115VA
IC711 TA75W01FU
QR701 UN9211 (LED DRIVE)
RA704 47K (X2)
TO POWER/ Page:3-32
MDREG
AF GND
TO CAMERA/ Page:3-18
REG 4.8V
PWM (A)
FNO
HOLE BIAS
HOLE GAIN
V REF
IRIS OPEN
Z. ENC
F. ENC
LED CTL
ZMT-
8V
0V
IC701-11 WIDE 8.0V DC (10msec./div.)
ZMT+
IC701-14 TELE 8.0V DC (10msec./div.)
IC702-9 POWER-ON 8.0Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC702-11 POWER-ON 8.0Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC702-14 POWER-ON 8.0Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC702-16 POWER-ON 8.0Vp-p (20msec./div.) FOCUS MOTOR DRIVING
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

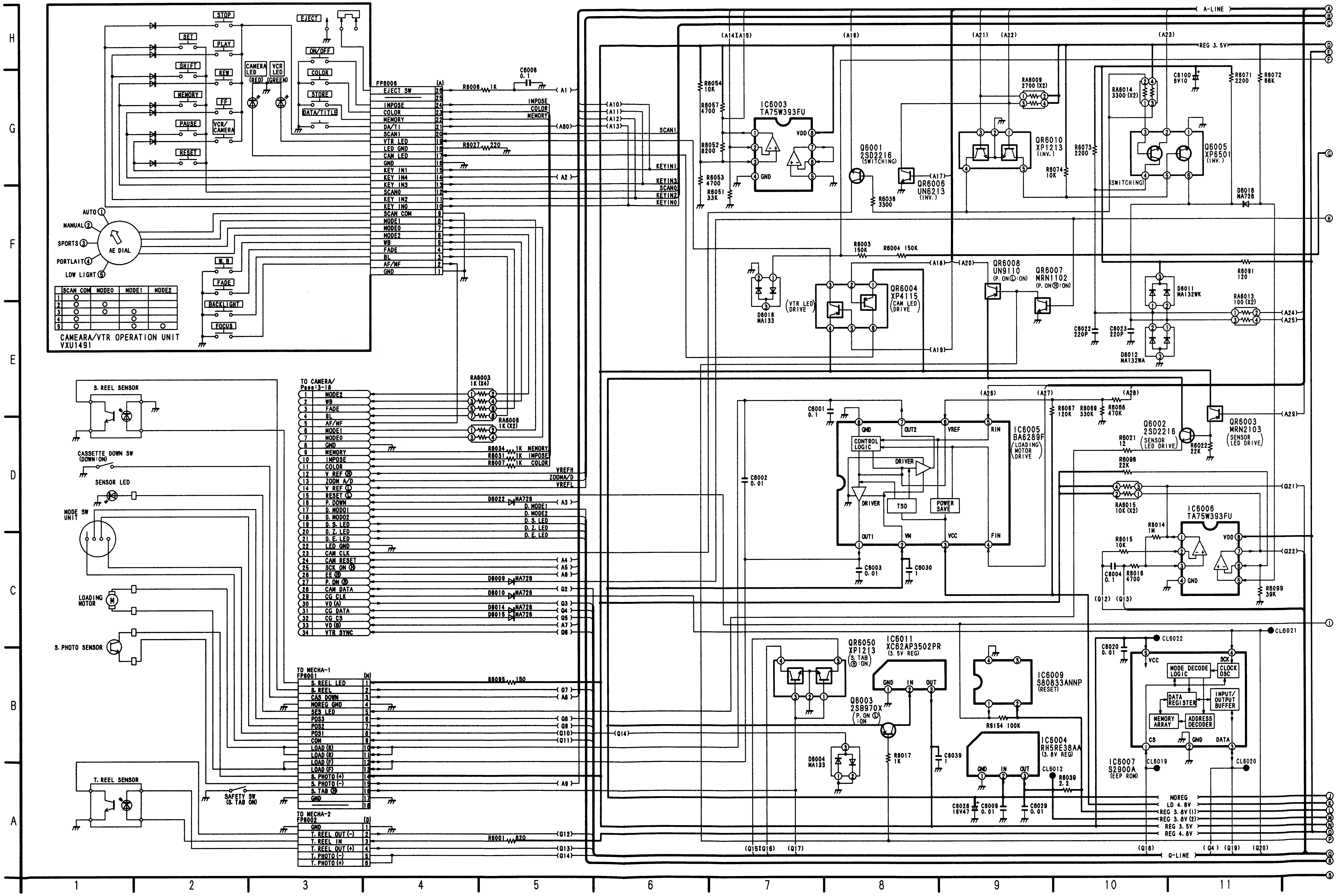
## 3-11. SUB SERVO SCHEMATIC DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
TO POWER/
Page:3-32
1 CAP VM
2 CYL GND
3 CAP GND
4 CAP NOREG
5 REG 4.8V
6 CYL NOREG
7 TRI WAVE
TO SYSTEM CTL/
Page:3-26
12 SS REG 3.5V
4 CAP EC
9 TL
11 CAP VS
13 CAP R/S/F
7 CYL FG
1 DRIVE CLK
2 CYL ON
8 CAP FG
10 GND
5 CAP SW
6 CYL PG
3 CYL EC
IC2001
TB6518F
(CYLINDER&CAPSTAN MOTOR CONTROL)
QR2002
UN9215
(AMP)
IC2001-53 REC/PLAY
560mVp-p (1μsec./div.)
IC2001-57 REC/PLAY
3.4Vp-p (0.5msec./div.)
IC2001-58 REC/PLAY
3.4Vp-p (0.5msec./div.)
IC2001-59 REC/PLAY
3.4Vp-p (5msec./div.)
IC2003
UN224
(CAPSTAN DRIVER)
IC2003-1, 3, 5 REC/PLAY
1.5Vp-p (20msec./div.)
IC2002
UN224
(CYLINDER DRIVER)
IC2002-1, 3, 5 REC/PLAY
2.4Vp-p (1msec./div.)
FP2002
TO CAPSTAN MOTOR [K]
18 VMR
17 FG
16 GND
15 H3+
14 VH-
13 H3-
12 M1
11 M1
10 H1+
9 VH-
8 H1-
7 M2
6 VH+
5 H2+
4 VH-
3 H2-
2 M3
1 M3
FP2001
TO CYLINDER MOTOR [C]
7 FG-
6 FG+
5 M2
4 M1
3 M3
2 PG-
1 PG+
HALL MATRIX
VM SHORT PROTECTOR
VM UNDER LIMIT
UPPER VCE DETECTOR
LOWER VCE DETECTOR
UPPER DISTRIBUTOR
LOWER DISTRIBUTOR
AMP
DIRECTION SELECT
ABSOLUTE VALUE
DIRECTION DETECTOR
LOGIC
RSF
MODULATION
MINIMUM
SHAPE
ACTIVE COIL SWITCHING LOGIC
SLOPE FORWER
DISTRIBUTOR
TERMINAL VOLTAGE COMPARATOR
EDGE DETECTOR
FC-COP
PCV AMP (VLL)
NOREG
CSW
N/P
YSTB
FC
VCC
CK
TST
YFG
CFG
PG
REFO
GND
REF
PG OUT
PG IN
CEC
CER
TL
CPI
CPV
CPS
CGND
CCS
RSF
H1+
H1-
H2+
H2-
H3+
H3-
CVM
CM1
CM2
CM3
CU3
CU2
CU1
CL1
CL2
CL3
YU3
YU2
YU1
YL1
YL2
YL3
YM1
YFG OUT
YFG IN
CFG OUT
CFG IN (H:STOP L:START)
YER
YEC
SU
SL
SUL
YPI
YPV
YGND
YCS
YVM
YM3
YM2
PE
PB1
PC1
PB2
PC2
PB3
PC3
NC1
NB1
NC2
NB2
NC3
NB3
NE
R2018 4700
R2012 680K
R2010 10K
R2024 100
R2016 2200
R2015 47K
R2017 1K
R2022 0.33
R2021 100
R2020 470
R2019 470
R2006 470K
R2004 150K
R2002 220K
R2001 1K
R2005 2700
R2003 2200
R2009 560
R2007 0.47
R2008 0.33
R2042 330
R2041 330
R2040 330
C2020 0.01
C2022 0.01
C2021 0.01
C2023 1
CL2002
CL2003
CL2001
C2033 1
C2029 0.01
C2043 0.1
C2018 6V10
C2014 6V10
C2010 0.1
C2011 0.01
C2005 3300P
C2004 100P
C2009 0.1
C2012 0.01
C2013 0.01
C2006 0.1
C2008 1
C2070 0.01
C2001 1
C2031 0.027
L2001 1μ
C2028 6V10
C2003 3300P
C2026 0.1
C2027 0.1
C2025 0.1
C2017 0.1
C2015 0.1
C2016 0.1
C2002 16V1
C2007 16V1
C2042 0.047
C2041 0.047
C2040 0.047
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

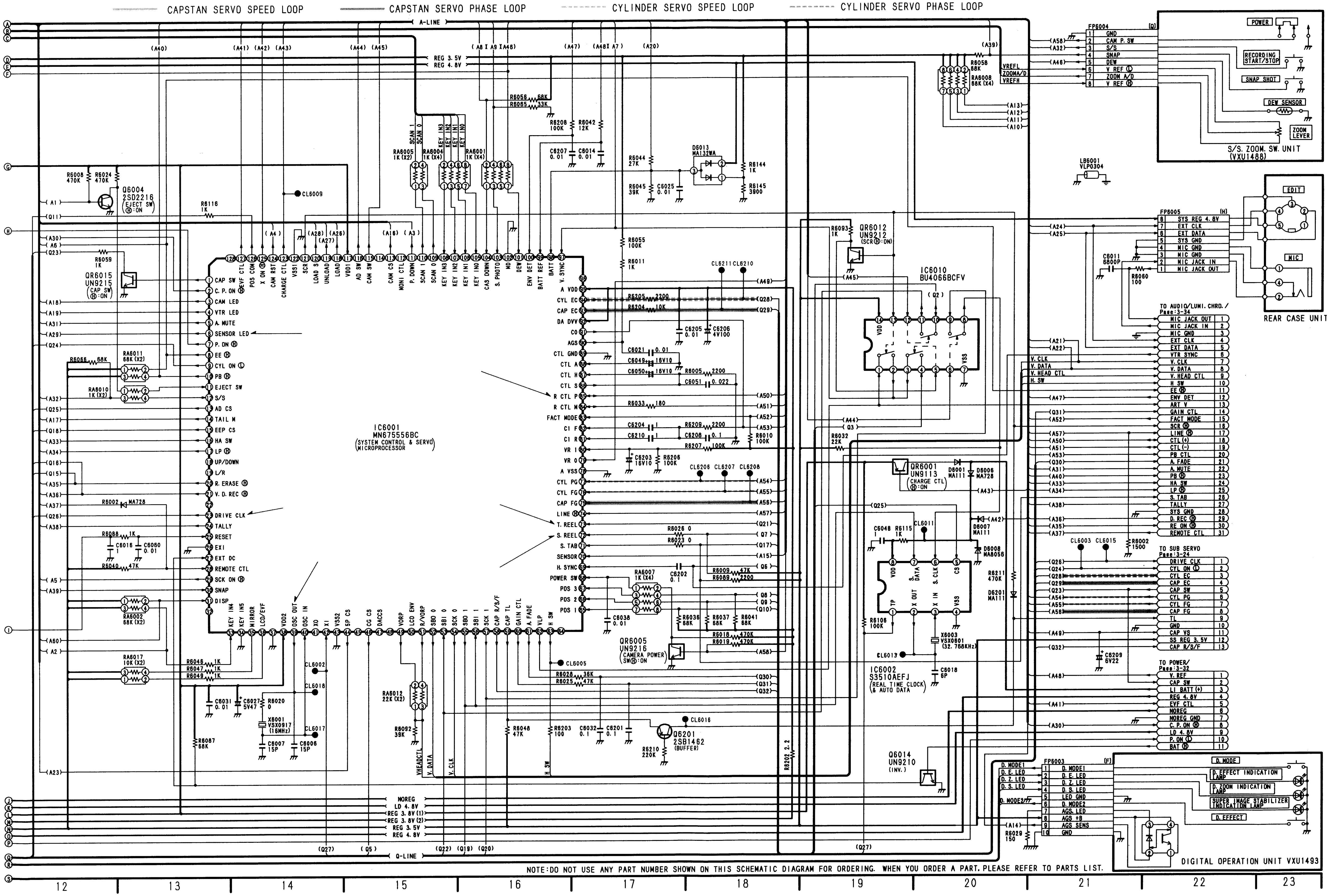
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS( ) ON THIS DIAGRAM IS RECORD MODE.
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

## 3-12. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


STOP
SET
PLAY
SHIFT
REW
MEMORY
FF
PAUSE
VCR/CAMERA
RESET
EJECT
ON/OFF
COLOR
STORE
DATA/TITLE
CAMERA LED (RED)
VCR LED (GREEN)
FP6006
EJECT SW
IMPOSE
COLOR
MEMORY
DA/TI
SCAN1
VTR LED
LED GND
CAM LED
GND
KEY IN1
KEY IN4
KEY IN3
SCAN0
KEY IN2
KEY IN0
SCAN COM
MODE1
MODE0
MODE2
WB
FADE
BL
AF/MF
GND
AUTO ①
MANUAL ②
SPORTS ③
PORTLAIT ④
LOW LIGHT ⑤
AE DIAL
W.B
FADE
BACKLIGHT
FOCUS
SCAN COM | MODE0 | MODE1 | MODE2
1 | ○ | | |
2 | ○ | ○ | |
3 | ○ | ○ | ○ |
4 | ○ | | ○ |
5 | ○ | | ○ | ○
CAMEARA/VTR OPERATION UNIT
VXU1491
S. REEL SENSOR
CASSETTE DOWN SW (DOWN:ON)
SENSOR LED
MODE SW UNIT
LOADING MOTOR
S. PHOTO SENSOR
T. REEL SENSOR
SAFETY SW (S. TAB ON)
TO CAMERA/ Page:3-18
TO MECHA-1 FP6001
TO MECHA-2 FP6002
A-LINE
REG 3.5V
Q-LINE
IC6003 TA75W393FU
Q6001 2SD2216 (SWITCHING)
QR6006 UN6213 (INV.)
QR6010 XP1213 (INV.)
Q6005 XP6501 (INV.)
QR6004 XP4115 (CAM LED) (DRIVE)
(VTR LED) (DRIVE)
QR6008 UN9110 (P. ON Ⓛ:ON)
QR6007 MRN1102 (P. ON Ⓗ:ON)
D6016 MA133
D6011 MA132WK
D6012 MA132WA
D6018 MA728
IC6005 BA6289F (LOADING MOTOR DRIVE)
CONTROL LOGIC
DRIVER
TSD
POWER SAVE
Q6002 2SD2216 (SENSOR LED DRIVE)
QR6003 MRN2103 (SENSOR LED DRIVE)
IC6006 TA75W393FU
QR6050 XP1213 (S. TAB Ⓓ:ON)
IC6011 XC62AP3502PR (3.5V REG)
Q6003 2SB970X (P. ON Ⓛ :ON)
D6004 MA133
IC6009 S80833ANNP (RESET)
IC6004 RH5RE38AA (3.8V REG)
IC6007 S2900A (EEP ROM)
MODE DECODE LOGIC
CLOCK OSC
DATA REGISTER
INPUT/OUTPUT BUFFER
MEMORY ARRAY
ADDRESS DECODER
NOREG
LD 4.8V
REG 3.8V (1)
REG 3.8V (2)
REG 3.5V
REG 4.8V

Back Page:
SUB SERVO Section


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
A-LINE
Q-LINE
REG 3.5V
REG 4.8V
IC6001
MN675556BC
(SYSTEM CONTROL & SERVO MICROPROCESSOR)
IC6010
BU4066BCFV
IC6002
S3510AEFJ
(REAL TIME CLOCK & AUTO DATA)
Q6004
2SD2216
(EJECT SW)
QR6015
UN9215
QR6012
UN9212
QR6001
UN9113
(CHARGE CTL)
QR6005
UN9216
(CAMERA POWER)
Q6201
2SB1462
(BUFFER)
Q6014
UN9210
(INV.)
X6001
VSX0917
(16MHz)
X6003
VSX0801
(32.768KHz)
D6013
MA132WA
LB6001
VLP0304
FP6004
FP6005
FP6003
S/S. ZOOM. SW. UNIT
(VXU1488)
POWER
RECORDING START/STOP
SNAP SHOT
DEW SENSOR
ZOOM LEVER
REAR CASE UNIT
EDIT
MIC
TO AUDIO/LUMI. CHRO./
Page:3-34
TO SUB SERVO
Page:3-24
TO POWER/
Page:3-32
DIGITAL OPERATION UNIT VXU1493
D. MODE
D. EFFECT INDICATION LAMP
D. ZOOM INDICATION LAMP
SUPER IMAGE STABILIZER INDICATION LAMP
D. EFFECT
12
13
14
15
16
17
18
19
20
21
22
23

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

## SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

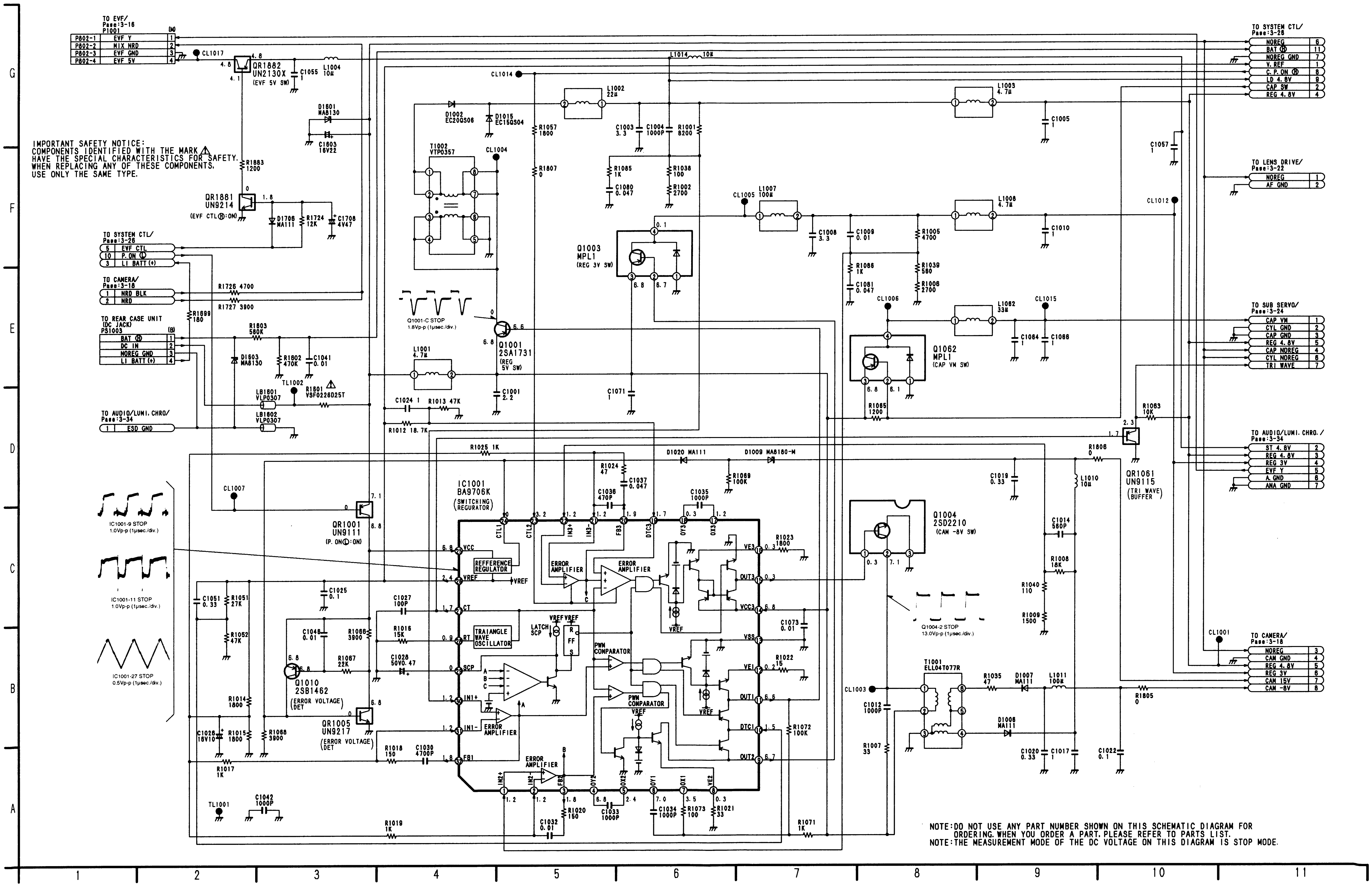
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| STOP | 0 | 3.7 | 3.7 | 0 | 0 | 3.7 | 3.7 | 3.7 | 3.7 | 0 | 0 | 3.5 | 2.7 | 0 | 0 | 3.7 | 0 | 0 | 3.7 | 0 |
| PLAY | 0 | 3.7 | 0 | 3.7 | 0 | 3.7 | 3.7 | 0 | 0 | 3.7 | 0 | 3.5 | 2.7 | 0 | 0 | 1.9 | 0 | 0 | 3.7 | 0 |
| F.F | 0 | 3.7 | 0 | 3.7 | 0 | 3.7 | 3.7 | 3.7 | 0 | 0 | 0 | 3.5 | 2.7 | 0 | 0 | 1.9 | 0 | 0 | 3.7 | 0 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| STOP | 0 | 0 | 1.9 | 3.7 | 3.7 | 0 | 3.7 | 3.5 | 3.5 | 3.5 | 3.5 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 4.0 | 3.7 | 1.9 | 1.8 |
| PLAY | 0 | 0 | 1.9 | 3.7 | 3.7 | 0 | 3.7 | 3.5 | 0 | 3.5 | 3.5 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 4.0 | 3.7 | 1.9 | 1.8 |
| F.F | 0 | 0 | 1.9 | 3.7 | 3.7 | 0 | 3.7 | 3.5 | 3.5 | 3.5 | 3.5 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 4.0 | 3.7 | 1.9 | 1.8 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| STOP | 1.9 | 1.0 | 0 | 2.6 | 3.7 | 3.5 | 0 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 2.8 | 3.0 | 2.4 | 2.3 | 3.3 | 1.5 | 3.7 | 1.3 |
| PLAY | 1.9 | 1.0 | 0 | 2.6 | 3.7 | 3.5 | 0 | 0 | 0.2 | 0 | 0 | 3.0 | 2.8 | 3.0 | 2.4 | 2.3 | 3.3 | 0 | 3.7 | 1.3 |
| F.F | 1.9 | 1.0 | 0 | 2.6 | 3.7 | 3.5 | 0 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 2.8 | 3.0 | 2.4 | 2.3 | 3.3 | 0.7 | 3.7 | 1.3 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| STOP | 0 | 0 | 3.7 | 0 | 3.7 | 3.7 | 3.7 | 3.6 | 1.2 | 0 | 3.3 | 2.8 | 3.5 | 1.2 | 3.2 | 3.2 | 0.1 | 0 | 1.9 | 1.9 |
| PLAY | 0 | 0 | 1.9 | 0 | 3.7 | 3.7 | 0 | 3.6 | 1.2 | 0 | 3.3 | 2.8 | 1.7 | 1.2 | 1.6 | 1.6 | 0.1 | 0 | 1.9 | 1.9 |
| F.F | 0 | 0 | 1.9 | 0 | 3.7 | 3.7 | 0 | 3.6 | 1.2 | 0 | 3.3 | 1.4 | 1.7 | 1.2 | 1.6 | 1.6 | 0.1 | 0 | 1.9 | 1.9 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| STOP | 1.7 | 2.1 | 3.7 | 0 | 0 | 0 | 1.8 | 1.8 | 0 | 3.5 | 1.8 | 3.7 | 0.1 | 3.5 | 3.7 | 0 | 1.2 | 3.3 | 2.4 | 1.8 |
| PLAY | 1.7 | 2.1 | 3.7 | 0 | 0 | 0 | 1.8 | 1.8 | 0 | 3.5 | 1.8 | 3.7 | 1.6 | 1.5 | 3.7 | 0 | 1.2 | 3.3 | 2.4 | 2.4 |
| F.F | 1.7 | 2.1 | 3.7 | 0 | 0 | 0 | 1.8 | 1.8 | 0 | 3.5 | 1.8 | 3.7 | 1.5 | 1.5 | 3.7 | 0 | 1.2 | 3.3 | 2.4 | 1.8 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
| STOP | 0 | 3.5 | 0 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.7 | 2.8 | 1.5 | 0.9 | 0 | 3.7 | 0 | 0 | 0 |
| PLAY | 0 | 3.5 | 0 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.7 | 3.7 | 0 | 3.7 | 2.8 | 1.5 | 0.9 | 0 | 3.7 | 0 | 0 | 0 |
| F.F | 0 | 3.5 | 0 | 0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.7 | 3.7 | 3.7 | 3.7 | 2.8 | 1.5 | 0.9 | 0 | 3.7 | 0 | 0 | 0 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | | | | | | | | | | | | |
| STOP | 0 | 0 | 0 | 3.7 | 0 | 0 | 3.7 | 0 | | | | | | | | | | | | |
| PLAY | 0 | 0 | 0 | 0 | 0 | 0 | 3.7 | 0 | | | | | | | | | | | | |
| F.F | 0 | 0 | 0 | 3.7 | 0 | 0 | 3.7 | 0 | | | | | | | | | | | | |
| REF. NO. | IC6002 | | | | | | | | | | IC6003 | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| STOP | 1.0 | 0.8 | 0.6 | 0 | 2.6 | 3.5 | 2.3 | 3.3 | | | 2.4 | 0 | 0.6 | 0 | 0 | 0 | 0 | 3.5 | | |
| PLAY | 1.0 | 0.8 | 0.6 | 0 | 2.6 | 3.5 | 2.3 | 3.3 | | | 2.4 | 0 | 0.6 | 0 | 0 | 0 | 0 | 3.5 | | |
| F.F | 1.0 | 0.8 | 0.6 | 0 | 2.6 | 3.5 | 2.3 | 3.3 | | | 2.4 | 0 | 0.6 | 0 | 0 | 0 | 0 | 3.5 | | |
| REF. NO. | IC6004 | | | | | | | | | | IC6005 | | | | | | | | | |
| MODE | 1 | 2 | 3 | | | | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| STOP | 0 | 6.5 | 3.7 | | | | | | | | 0 | 6.5 | 4.9 | 0 | 0 | 3.0 | 0 | 0 | | |
| PLAY | 0 | 6.5 | 3.7 | | | | | | | | 0 | 6.5 | 4.9 | 0 | 0 | 3.0 | 0 | 0 | | |
| F.F | 0 | 6.5 | 3.7 | | | | | | | | 0 | 6.5 | 4.9 | 0 | 0 | 3.0 | 0 | 0 | | |
| REF. NO. | IC6006 | | | | | | | | | | IC6007 | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 1 | 2 | 3 | 4 | 5 | | | | | |
| STOP | 3.4 | 0.7 | 0.7 | 0 | 3.2 | 2.3 | 3.2 | 4.9 | | | 0 | 0 | 2.5 | 3.4 | 3.5 | | | | | |
| PLAY | 1.7 | 0.7 | 0.7 | 0 | 3.2 | 2.3 | 3.2 | 4.9 | | | 0 | 0 | 2.5 | 3.4 | 3.5 | | | | | |
| F.F | 1.7 | 0.7 | 0.7 | 0 | 3.2 | 2.3 | 3.2 | 4.9 | | | 0 | 0 | 2.5 | 3.4 | 3.5 | | | | | |
| REF. NO. | IC6009 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | |
| STOP | 3.7 | 3.7 | 0 | 0 | | | | | | | | | | | | | | | | |
| PLAY | 3.7 | 3.7 | 0 | 0 | | | | | | | | | | | | | | | | |
| F.F | 3.7 | 3.7 | 0 | 0 | | | | | | | | | | | | | | | | |
| REF. NO. | IC6010 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | |
| STOP | 0 | 0 | 0 | 0 | 3.5 | 0 | 0 | 3.4 | 3.1 | 2.5 | 2.9 | 1.4 | 0 | 3.5 | | | | | | |
| PLAY | 0 | 0.2 | 0.2 | 0.2 | 3.5 | 0 | 0 | 3.4 | 3.1 | 3.1 | 3.2 | 0 | 0 | 3.5 | | | | | | |
| F.F | 0 | 0 | 0 | 0 | 3.5 | 0 | 0 | 3.4 | 2.9 | 2.4 | 2.8 | 1.4 | 0 | 3.5 | | | | | | |
| REF. NO. | IC6011 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | | | | | | | | | | | | | | | | | |
| STOP | 0 | 6.5 | 3.5 | | | | | | | | | | | | | | | | | |
| PLAY | 0 | 6.5 | 3.5 | | | | | | | | | | | | | | | | | |
| F.F | 0 | 6.5 | 3.5 | | | | | | | | | | | | | | | | | |

## SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

| REF. NO. | Q6001 | | | Q6002 | | | Q6003 | | | Q6004 | | | Q6201 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | E | C | B | E | C | B | E | C | B | E | C | B | E | C | B | | | |
| STOP | 2.3 | 2.8 | 0.2 | 0 | 6.5 | 0 | 6.5 | 6.2 | 5.6 | 0 | 0 | 0.5 | 3.7 | 3.7 | 3.2 | | | |
| PLAY | 3.7 | 3.0 | 0.3 | 0 | 6.5 | 0 | 6.5 | 6.2 | 5.6 | 0 | 0 | 0.5 | 3.7 | 3.7 | 3.2 | | | |
| F.F | 2.3 | 2.8 | 0.2 | 0 | 6.5 | 0 | 6.5 | 6.2 | 5.6 | 0 | 0 | 0.5 | 3.7 | 3.7 | 3.2 | | | |
| REF. NO. | QR6001 | | | QR6003 | | | QR6004 | | | | | | QR6005 | | | QR6006 | | |
| MODE | E | C | B | E | C | B | 1 | 2 | 3 | 4 | 5 | 6 | E | C | B | E | C | B |
| STOP | 3.7 | 3.7 | 0 | 3.5 | 0 | 3.7 | 3.5 | 3.7 | 0 | 3.5 | 0 | 3.4 | 0 | 0 | 2.0 | 0 | 3.2 | 0 |
| PLAY | 3.7 | 3.7 | 0 | 3.5 | 0 | 3.7 | 3.5 | 0 | 3.4 | 3.5 | 3.7 | 0 | 0 | 3.6 | 0 | 0 | 3.1 | 0 |
| F.F | 3.7 | 3.7 | 0 | 3.5 | 0 | 3.7 | 3.5 | 0 | 3.4 | 3.5 | 3.7 | 0 | 0 | 3.6 | 0 | 0 | 3.1 | 0 |
| REF. NO. | QR6007 | | | QR6008 | | | QR6010 | | | | | | QR6012 | | | QR6014 | | |
| MODE | E | C | B | E | C | B | 1 | 2 | 3 | 4 | 5 | | E | C | B | E | C | B |
| STOP | 0 | 0 | 3.6 | 6.6 | 6.5 | 0 | 3.2 | 0 | 3.0 | 0.3 | 0 | | 0 | 3.5 | 0 | 0 | 3.7 | 0 |
| PLAY | 0 | 0 | 3.6 | 6.6 | 6.5 | 0 | 3.1 | 0 | 3.0 | 0.3 | 0.1 | | 0 | 3.5 | 0 | 0 | 3.7 | 0 |
| F.F | 0 | 0 | 3.6 | 6.5 | 6.4 | 0 | 3.1 | 0 | 3.0 | 0.3 | 0.1 | | 0 | 3.5 | 0 | 0 | 3.7 | 0 |
| REF. NO. | QR6015 | | | QR6050 | | | | | | | | | | | | | | |
| MODE | E | C | B | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | |
| STOP | 0 | 6.3 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |
| PLAY | 0 | 6.0 | 0 | 0 | 0 | 0 | 3.2 | 3.2 | | | | | | | | | | |
| F.F | 0 | 5.8 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | |

Back Page:
SYSTEM CTL & SERVO Section

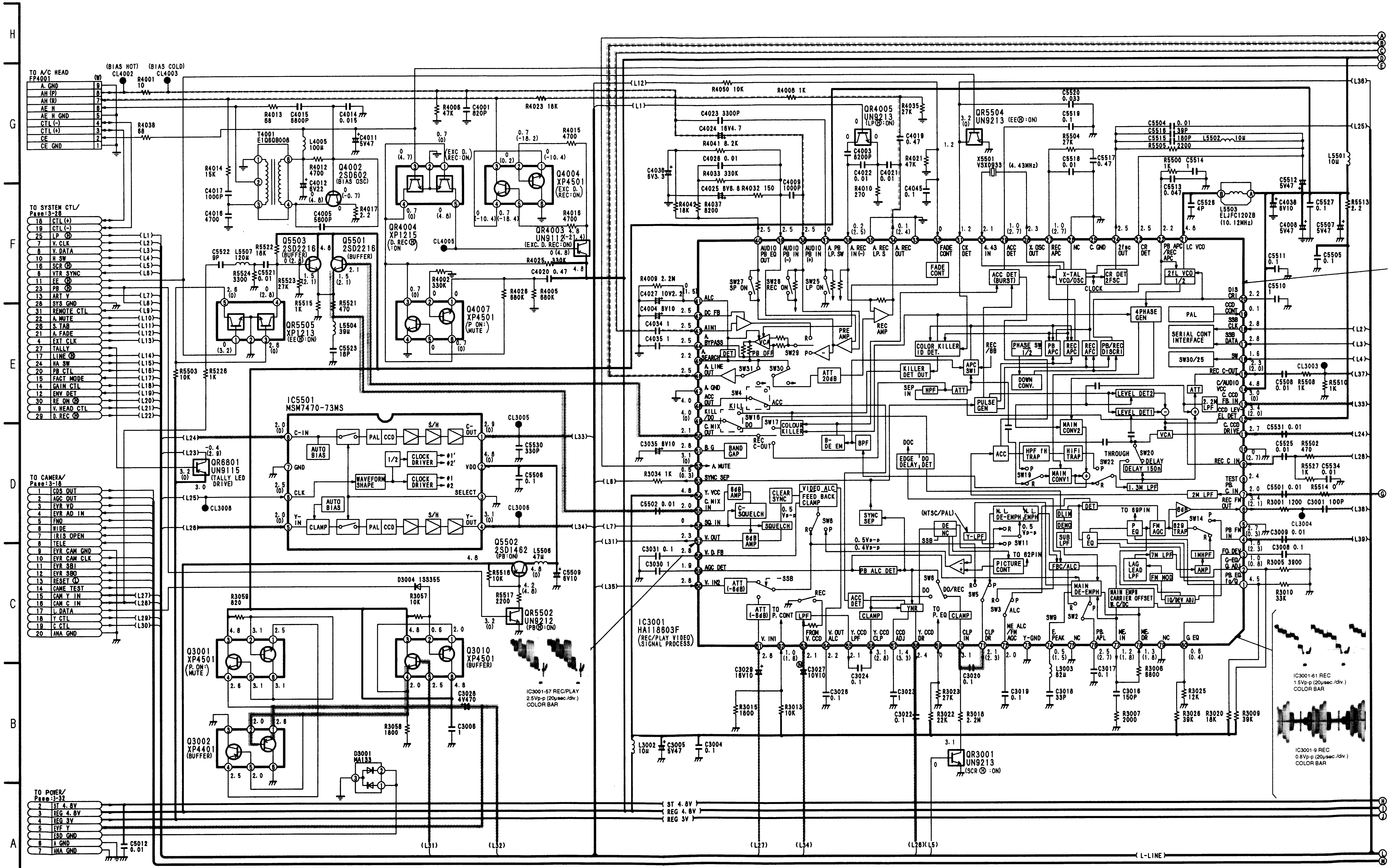
## 3-13. POWER SCHEMATIC DIAGRAM


TO EVF/ Page:3-16 P1001
P802-1 EVF Y
P802-2 MIX NRD
P802-3 EVF GND
P802-4 EVF 5V
CL1017
QR1882 UN2130X (EVF 5V SW)
C1055 1
L1004 10µ
D1801 MA8130
C1803 16V22
R1883 1200
QR1881 UN9214 (EVF CTL(H):ON)
D1706 MA111
R1724 12K
C1706 4V47
TO SYSTEM CTL/ Page:3-26
5 EVF CTL
10 P.ON (L)
3 LI BATT (+)
TO CAMERA/ Page:3-18
1 NRD BLK
2 NRD
R1726 4700
R1727 3900
R1699 180
TO REAR CASE UNIT (DC JACK) PS1003
BAT (+)
DC IN
NOREG GND
LI BATT (+)
R1803 560K
D1803 MA8130
R1802 470K
C1041 0.01
TL1002
LB1801 VLP0307
LB1802 VLP0307
R1801 VSF0228D25T
TO AUDIO/LUMI. CHRO/ Page:3-34
1 ESD GND
CL1007
IC1001-9 STOP 1.0Vp-p (1µsec./div.)
IC1001-11 STOP 1.0Vp-p (1µsec./div.)
IC1001-27 STOP 0.5Vp-p (1µsec./div.)
CL1014
D1002 EC20QS06
D1015 EC15QS04
T1002 VTP0357
CL1004
R1057 1800
R1807 0
L1002 22µ
C1003 3.3
C1004 1000P
R1001 8200
R1085 1K
C1080 0.047
R1038 100
R1002 2700
L1014 10µ
Q1003 MPL1 (REG 3V SW)
CL1005
L1007 100µ
C1008 3.3
C1009 0.01
R1005 4700
R1066 1K
C1081 0.047
R1039 560
R1006 2700
L1003 4.7µ
C1005 1
L1006 4.7µ
C1010 1
CL1006
L1062 33µ
CL1015
C1064 1
C1066 1
Q1062 MPL1 (CAP VM SW)
R1065 1200
Q1001-C STOP 1.8Vp-p (1µsec./div.)
Q1001 2SA1731 (REG 5V SW)
L1001 4.7µ
C1001 2.2
C1071 1
C1024 1
R1013 47K
R1012 18.7K
C1057 1
CL1012
TO SYSTEM CTL/ Page:3-26
NOREG
BAT (+)
NOREG GND
V.REF
C.P.ON (H)
LD 4.8V
CAP SW
REG 4.8V
TO LENS DRIVE/ Page:3-22
NOREG
AF GND
TO SUB SERVO/ Page:3-24
CAP VM
CYL GND
CAP GND
REG 4.8V
CAP NOREG
CYL NOREG
TRI WAVE
R1063 10K
QR1061 UN9115 (TRI WAVE BUFFER)
TO AUDIO/LUMI. CHRO./ Page:3-34
ST 4.8V
REG 4.8V
REG 3V
EVF Y
A.GND
AMA GND
R1025 1K
D1020 MA111
D1009 MA8180-M
R1806 0
R1024 47
C1037 0.047
R1069 100K
C1036 470P
C1035 1000P
IC1001 BA9706K (SWITCHING REGULATOR)
REFFERENCE REGULATOR
ERROR AMPLIFIER
TRAIANGLE WAVE OSCILLATOR
LATCH SCP
PWM COMPARATOR
QR1001 UN9111 (P.ON(L):ON)
QR1005 UN9217 (ERROR VOLTAGE DET)
Q1010 2SB1462 (ERROR VOLTAGE DET)
C1051 0.33
R1051 27K
R1052 47K
C1025 0.1
C1027 100P
C1046 0.01
R1068 3900
R1016 15K
R1067 22K
C1028 50V0.47
R1014 1800
C1026 16V10
R1015 1800
R1088 3900
R1017 1K
R1018 150
C1030 4700P
TL1001
C1042 1000P
R1019 1K
R1020 150
C1032 0.01
C1033 1000P
C1034 1000P
R1073 100
R1021 33
R1023 1800
C1073 0.01
R1022 15
R1072 100K
R1071 1K
C1019 0.33
L1010 10µ
C1014 560P
R1008 18K
R1040 110
R1009 1500
Q1004 2SD2210 (CAM -8V SW)
Q1004-2 STOP 13.0Vp-p (1µsec./div.)
CL1003
C1012 1000P
R1007 33
T1001 ELL04T077R
R1035 47
D1007 MA111
L1011 100µ
D1008 MA111
C1020 0.33
C1017 1
C1022 0.1
R1805 0
CL1001
TO CAMERA/ Page:3-18
NOREG
CAM GND
REG 4.8V
REG 3V
CAM 15V
CAM -8V
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠
HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SAME TYPE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

# 3-14. LUMINANCE/CHROMINANCE/HEAD AMP & AUDIO SCHEMATIC DIAGRAM

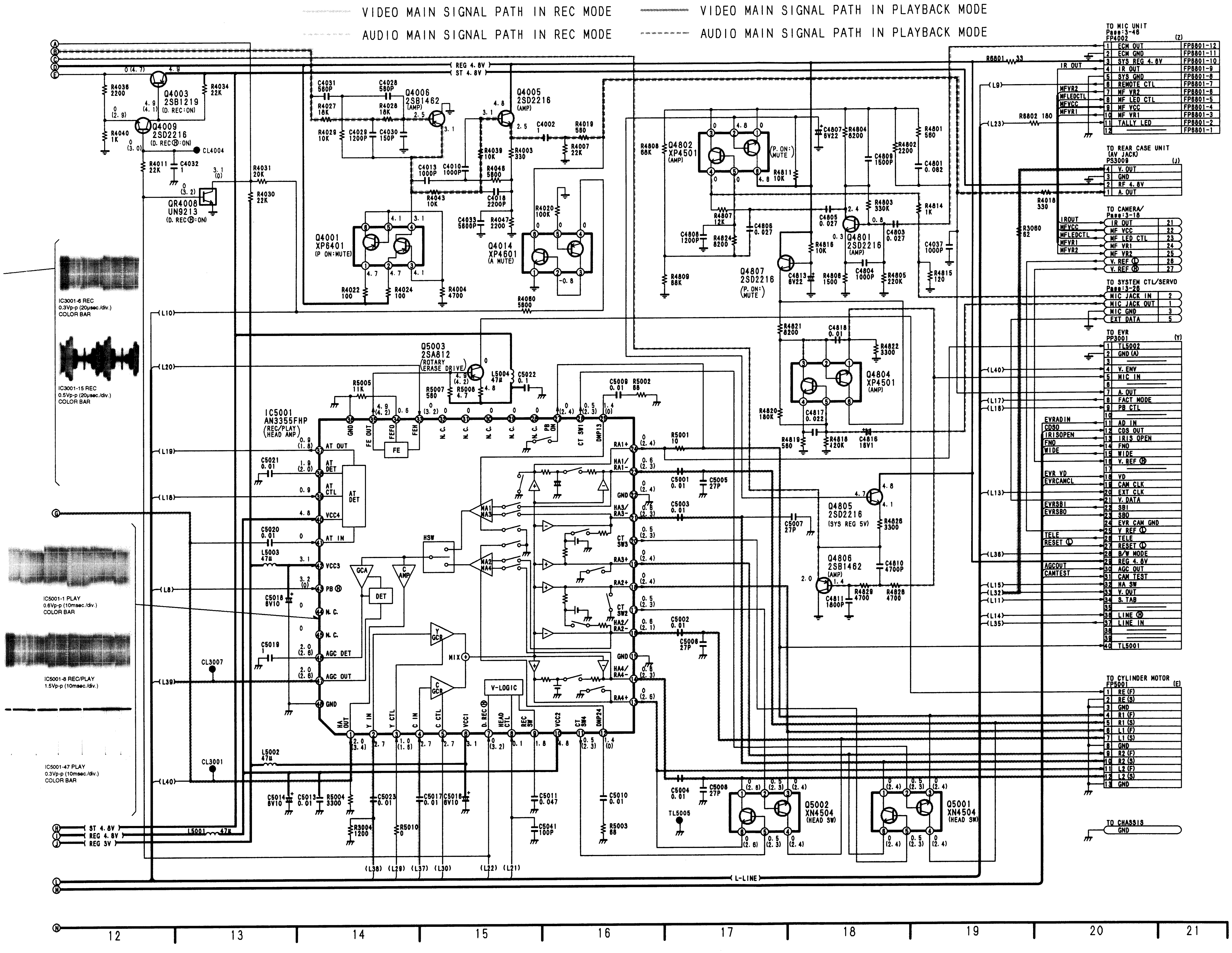

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
TO A/C HEAD
FP4001
A. GND
AH (P)
AH (R)
AE H
AE H GND
CTL (-)
CTL (+)
CE
CE GND
(BIAS HOT)
(BIAS COLD)
CL4002
CL4003
R4001 10
R4038 68
R4013 68
C4015 5600P
C4014 0.015
T4001 E1080B008
L4005 100μ
C4011 5V47
R4014 15K
R4012 4700
Q4002 2SD602 (BIAS OSC)
C4012 6V22
C4017 1000P
C4016 4700
C4005 5600P
R4017 2.2
R4006 47K
C4001 820P
R4023 18K
R4015 4700
R4016 4700
QR4004 XP1215 (D. REC ⓗ :ON)
Q4004 XP4501 (EXC D.) (REC:ON)
QR4003 UN9112 (EXC. D. REC:ON)
R4025 330K
C4020 0.47
CL4005
R4002 330K
Q4007 XP4501 (P ON:) (MUTE)
R4026 680K
R4005 680K
TO SYSTEM CTL/ Page:3-26
CTL (+)
CTL (-)
LP ⓗ
V. CLK
V. DATA
H SW
SCR ⓗ
VTR SYNC
EE ⓗ
PB ⓗ
ART V
SYS GND
REMOTE CTL
A. MUTE
S. TAB
A. FADE
EXT CLK
TALLY
LINE ⓗ
HA SW
PB CTL
FACT MODE
GAIN CTL
ENV DET
RE ON ⓗ
V. HEAD CTL
D. REC ⓗ
C5522 9P
L5507 120μ
R5522 18K
Q5503 2SD2216 (BUFFER)
Q5501 2SD2216 (BUFFER)
R5524 3300
C5521 0.01
R5523 27K
R5515 1K
R5521 470
L5504 39μ
C5523 18P
QR5505 XP1213 (EE ⓗ :ON)
R5503 10K
R5226 1K
IC5501 MSM7470-73MS
C-IN
GND
CLK
Y-IN
AUTO BIAS
PAL CCD
S/H
C-OUT
VDD
1/2
CLOCK DRIVER
WAVEFORM SHAPE
SELECT
CLAMP
Y-OUT
CL3005
C5530 330P
C5506 0.1
CL3006
CL3008
QR6801 UN9115 (TALLY LED DRIVE)
TO CAMERA/ Page:3-18
CDS OUT
AGC OUT
EVR VD
EVR AD IN
FNO
WIDE
IRIS OPEN
TELE
EVR CAM GND
EVR CAM CLK
EVR SBI
EVR SBO
RESET ⓗ
CAME TEST
CAM Y IN
CAM C IN
L DATA
Y CTL
C CTL
ANA GND
Q5502 2SD1462 (PB:ON)
L5506 47μ
C5509 6V10
R5518 10K
R5517 2200
QR5502 UN9212 (PB ⓗ :ON)
D3004 1SS355
R3059 820
R3057 10K
Q3001 XP4501 (P. ON:) (MUTE)
Q3010 XP4501 (BUFFER)
C3028 4V470
R3058 1800
C3006 1
Q3002 XP4401 (BUFFER)
D3001 MA133
IC3001-57 REC/PLAY 2.5Vp-p (20μsec./div.) COLOR BAR
TO POWER/ Page:3-32
ST 4.8V
REG 4.8V
REG 3V
EVF Y
ESD GND
A GND
ANA GND
C5012 0.01
R4050 10K
R4008 1K
C4023 3300P
C4024 16V4.7
R4041 8.2K
C4028 0.01
R4033 330K
C4025 6V6.8
R4032 150
C4009 1000P
C4036 6V3.3
R4042 18K
R4037 8200
QR4005 UN9213 (LP ⓗ :ON)
R4035 27K
C4019 0.47
C4003 8200P
C4022 0.01
C4021 0.01
R4021 47K
R4010 270
C4045 0.1
QR5504 UN9213 (EE ⓗ :ON)
X5501 VSX0933 (4.43MHz)
C5520 0.033
C5519 0.1
R5504 27K
C5518 0.01
C5517 0.47
C5504 0.01
C5516 39P
C5515 180P
R5505 2200
L5502 10μ
L5501 10μ
R5500 1K
C5514 1
C5513 0.047
C5526 4P
L5503 ELJFC120ZB (10.12MHz)
C5512 5V47
C4038 6V10
C5527 0.1
R5513 2.2
C4008 5V47
C5507 5V47
C5511 1
C5505 0.1
C5510 1
AUDIO PB EQ OUT
AUDIO PB IN (-)
AUDIO PB IN (+)
A. PB LP. SW
A. REC IN(-)
A. REC LP. S
A. REC OUT
FADE CONT
CK DET
4.43 IN
ACC DET
X OSC OUT
REC APC
NC
C. GND
2fsc OUT
CR DET
PB APC /REC APC
LC VCO
ACC DET (BURST)
X-TAL VCO/OSC
CR DET 2FSC
CLOCK
2fL VCO 1/2
R4009 2.2M
C4027 10V2.2
C4004 6V10
C4034 1
C4035 1
SW27 SP ON
SW26 REC ON
SW25 LP ON
ALC
DC FB
AIN1
A. BYPASS
A. SEARCH
A. LINE OUT
A. GND
ACC OUT
KILL /DO
C. MIX OUT
B G
BAND GAP
A. MUTE
SYNC SEP
Y. VCC
C. MIX IN
SQ. IN
V. OUT
V. D. FB
AGC DET
V. IN2
PRE AMP
REC AMP
VCA
DET
PB OFF
SW29
SW31
SW30
ATT 20dB
SW4
SW18
SW17
COLOUR KILLER
REC C-OUT
B-DE EM
BPF
COLOR KILLER ID DET.
KILLER DET OUT
REC /BB
PHASE SW 1/2
PB APC
REC APC
REC AFC
PB/REC DISCRI
APC SW1
DOWN CONV.
PULSE GEN
SEP IN
HPF
ATT
4PHASE GEN
PAL
SERIAL CONT INTERFACE
SW30/25
LEVEL DET2
LEVEL DET1
VCA
MAIN CONV2
ACC
HPF FH TRAP
HIFI TRAP
THROUGH
SW20
DELAY
DELAY 150n
SW22
SW19
MAIN CONV1
1.3M LPF
DOC
EDGE DO DELAY DET
SYNC SEP
C3035 6V10
R3034 1K
C5502 0.01
C3031 0.1
C3030 1
6dB AMP
CLEAR SYNC
VIDEO ALC FEED BACK CLAMP
C-SQUELCH
SQUELCH
6dB AMP
ATT (-6dB)
SW8
(NTSC/PAL)
DE NC
Y-LPF
0.5Vp-p
0.4Vp-p
SSB
N. L DE-EMPH
N. L EMPH
SW11
TO 62PIN
PICTURE CONT
PB ALC DET
SW6
DO
DO/REC
SW5
SW3
ALC
SW9
SW2
DLIM
DEMO
SUB LPF
G EQ
FBC/ALC
MAIN DE-EMPH
MAIN EMPH CARRIER OFFSET W. C/DC
DET
TO 69PIN
P EQ
FM AGC
6dB
829 TRAP
SW14
LAG LEAD LPF
7M LPF
FM MOD
1MHPF
AMP
(0/DEV ADJ)
2M LPF
DIS CRI
CCD CONT
SSB CLK
SSB DATA
SW
REC C-OUT
C/AUDIO VCC
C. CCD FB IN
CCD LEV EL DET
C. CCD DRIVE
REC C IN
TEST PB C IN
REC FM OUT
PB FM IN
FG DEV
G-EQ/Q ADJ
PB EQ fo/Q
CL3003
C5508 0.01
R5508 1K
R5510 1K
C5531 0.01
C5525 0.01
R5502 470
R5527 1K
C5534 0.01
C5501 0.01
R5514 0
R3001 1200
C3001 100P
CL3004
C3009 0.01
C3008 0.1
R3005 3900
R3010 33K
IC3001 HA118603F (REC/PLAY VIDEO SIGNAL PROCESS)
V. IN1
ATT (-6dB)
TO P. CONT
LPF
FROM V. CCD
V. OUT ALC
Y. CCD LPF
Y. CCD CLP
CCD ADJ
Y. CCD DR
YNR
CLAMP
ACC DET
TO P. EQ
CLAMP
CLP IN
CLP DR
ME ALC /FM AGC
Y-GND
E. PEAK
NC
PB. APL
ME. IN
ME. DR
NC
G. EQ
C3029 16V10
C3027 10V10
C3026 0.1
C3024 0.1
C3023
C3022 0.1
R3015 1800
R3013 10K
R3023 27K
R3022 22K
R3018 2.2M
C3020 0.1
C3019 0.1
L3003 82μ
C3018 33P
C3017 0.1
R3006 6800
C3016 150P
R3007 2000
R3025 12K
R3026 39K
R3020 18K
R3009 39K
L3002 10μ
C3005 5V47
C3004 0.1
QR3001 UN9213 (SCR ⓗ :ON)
IC3001-61 REC 1.5Vp-p (20μsec./div.) COLOR BAR
IC3001-9 REC 0.8Vp-p (20μsec./div.) COLOR BAR
L-LINE
A
B
C
D
E
F
G
H
I
J
K
L

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRAKETS( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART. (SP MODE)

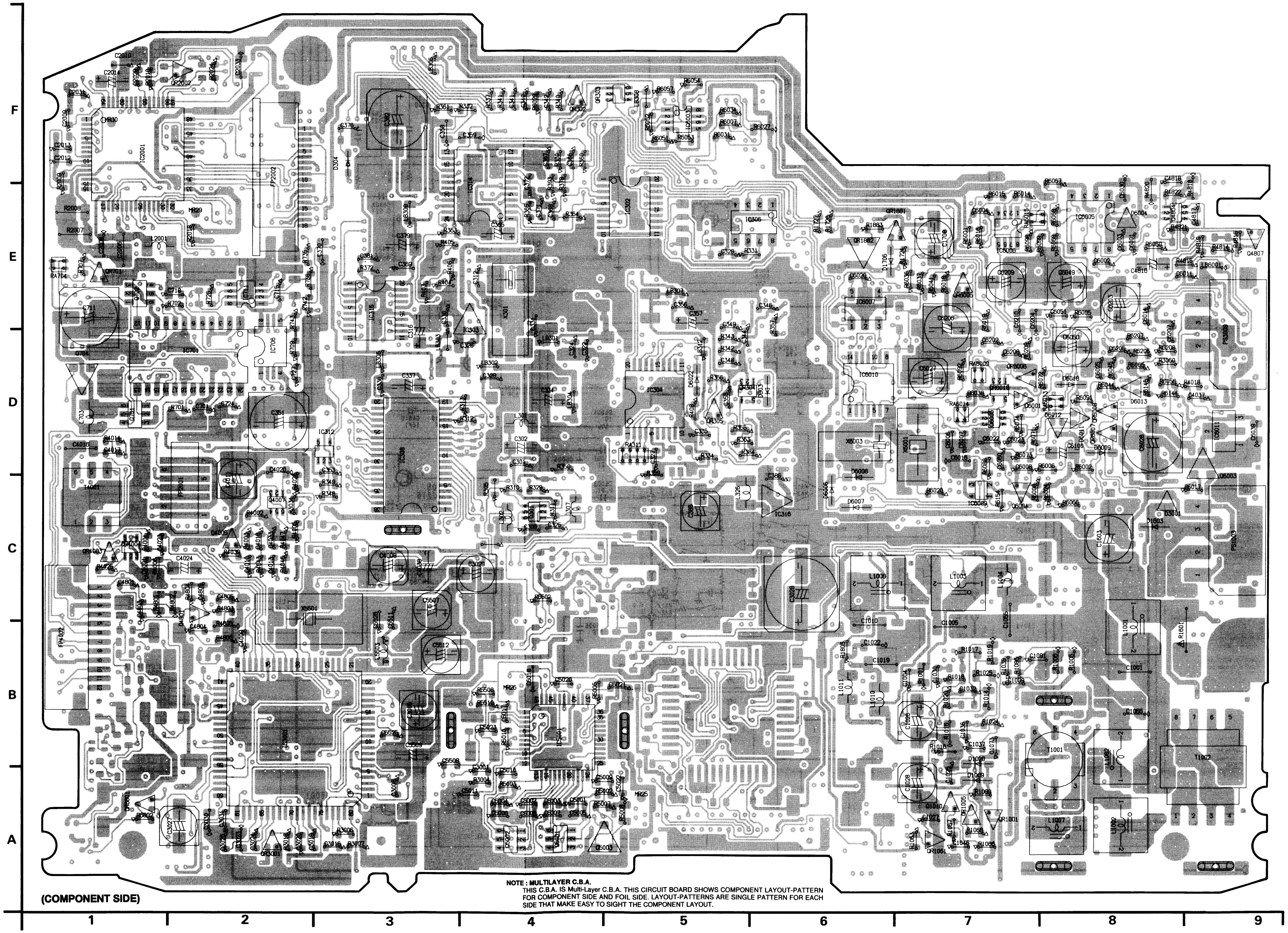
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

Back Page:
POWER Section


VIDEO MAIN SIGNAL PATH IN REC MODE
AUDIO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE
IC3001-6 REC
0.3Vp-p (20μsec./div.)
COLOR BAR
IC3001-15 REC
0.5Vp-p (20μsec./div.)
COLOR BAR
IC5001-1 PLAY
0.6Vp-p (10msec./div.)
COLOR BAR
IC5001-8 REC/PLAY
1.5Vp-p (10msec./div.)
IC5001-47 PLAY
0.3Vp-p (10msec./div.)
COLOR BAR
Q4003 2SB1219 (D. REC:ON)
Q4009 2SD2216 (D. REC Ⓗ:ON)
QR4008 UN9213 (D. REC Ⓗ:ON)
Q4006 2SB1462 (AMP)
Q4005 2SD2216 (AMP)
Q4001 XP6401 (P ON:MUTE)
Q4014 XP4601 (A MUTE)
Q4802 XP4501 (AMP)
Q4801 2SD2216 (AMP)
Q4807 2SD2216 (P. ON: MUTE)
Q4804 XP4501 (AMP)
Q4805 2SD2216 (SYS REG 5V)
Q4806 2SB1462 (AMP)
Q5003 2SA812 (ROTARY ERASE DRIVE)
IC5001 AN3355FHP (REC/PLAY) (HEAD AMP)
Q5002 XN4504 (HEAD SW)
Q5001 XN4504 (HEAD SW)
REG 4.8V
ST 4.8V
ST 4.8V
REG 4.8V
REG 3V
L-LINE
TO MIC UNIT
Page:3-46
FP4002 (Z)
1 ECM OUT FP6801-12
2 ECM GND FP6801-11
3 SYS REG 4.8V FP6801-10
4 IR OUT FP6801-9
5 SYS GND FP6801-8
6 REMOTE CTL FP6801-7
7 MF VR2 FP6801-6
8 MF LED CTL FP6801-5
9 MF VCC FP6801-4
10 MF VR1 FP6801-3
11 TALLY LED FP6801-2
12 FP6801-1
TO REAR CASE UNIT (AV JACK)
PS3009 (J)
4 V. OUT
3 GND
2 RF 4.8V
1 A. OUT
TO CAMERA/
Page:3-18
IR OUT 21
MF VCC 22
MF LED CTL 23
MF VR1 24
MF VR2 25
V. REF Ⓛ 26
V. REF Ⓗ 27
TO SYSTEM CTL/SERVO
Page:3-26
MIC JACK IN 2
MIC JACK OUT 1
MIC GND 3
EXT DATA 5
TO EVR
PP3001 (Y)
1 TL5002
2 GND (A)
3
4 V. ENV
5 MIC IN
6
7 A. OUT
8 FACT MODE
9 PB CTL
10
11 AD IN
12 CDS OUT
13 IRIS OPEN
14 FNO
15 WIDE
16 V. REF Ⓗ
17
18 VD
19 CAM CLK
20 EXT CLK
21 V. DATA
22 SBI
23 SBO
24 EVR CAM GND
25 V REF Ⓛ
26 TELE
27 RESET Ⓛ
28 B/W MODE
29 REG 4.8V
30 AGC OUT
31 CAM TEST
32 HA SW
33 V. OUT
34 S. TAB
35
36 LINE Ⓗ
37 LINE IN
38
39
40 TL5001
TO CYLINDER MOTOR
FP5001 (E)
1 RE (F)
2 RE (S)
3 GND
4 R1 (F)
5 R1 (S)
6 L1 (F)
7 L1 (S)
8 GND
9 R2 (F)
10 R2 (S)
11 L2 (F)
12 L2 (S)
13 GND
TO CHASSIS
GND
12
13
14
15
16
17
18
19
20
21

## 3-15. CAMERA/MAIN [Camera, Lens Drive, Sub Servo, System Control & Servo, Power, Luminance/Chrominance/Head Amp & Audio Sections] C.B.A. (VEP23461A)

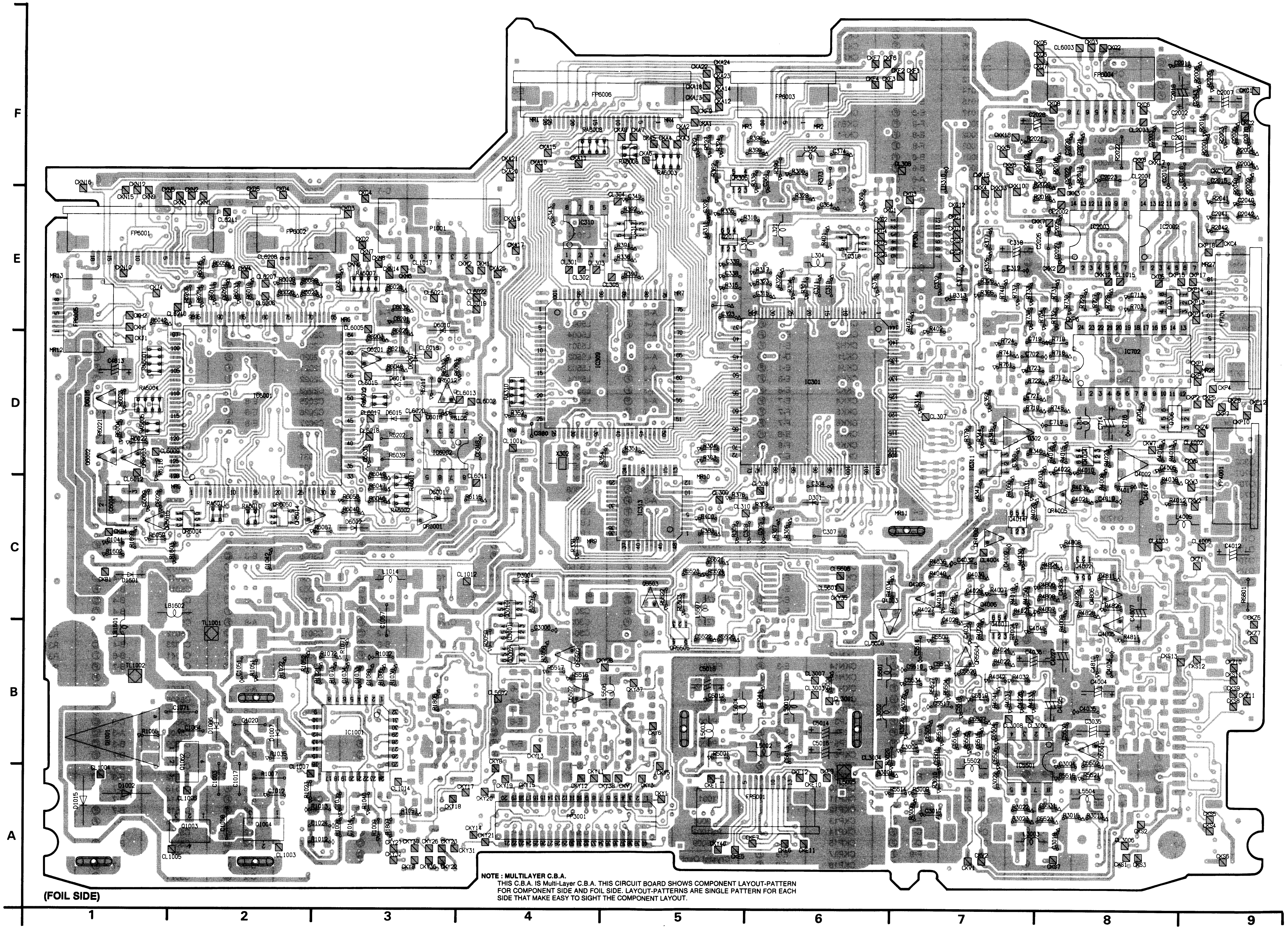
**COMPONENT SIDE**



NOTE : MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

Back Page:
LUMI/CHRO/H.A. & AUDIO Section

**FOIL SIDE**


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
(FOIL SIDE)
FP6001
FP6002
P1001
FP6006
FP6003
FP6004
IC6001
IC6002
IC309
IC301
IC313
IC318
IC702
IC2003
IC2002
IC1001
IC3501
FP3001
FP5001
TL1001
TL1002
LB1602
D1601
X302

**NOTE : MULTILAYER C.B.A.**
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT-PATTERNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

# MAIN C.B.A. ADDRESS INFORMATIONS

**CAM/MAIN C.B.A.**

**Integrated Circuit**

| | | |
|---|---|---|
| IC301 | D-6 | Ⓕ |
| IC302 | E-5 | Ⓒ |
| IC303 | D-4 | Ⓒ |
| IC304 | D-5 | Ⓒ |
| IC306 | E-5 | Ⓒ |
| IC308 | D-3 | Ⓒ |
| IC309 | D-4 | Ⓕ |
| IC310 | E-4 | Ⓕ |
| IC311 | D-7 | Ⓕ |
| IC312 | D-3 | Ⓒ |
| IC313 | C-5 | Ⓕ |
| IC314 | E-4 | Ⓒ |
| IC315 | E-3 | Ⓒ |
| IC316 | C-6 | Ⓒ |
| IC317 | E-5 | Ⓕ |
| IC318 | E-6 | Ⓕ |
| IC701 | D-2 | Ⓒ |
| IC702 | D-8 | Ⓕ |
| IC706 | D-2 | Ⓒ |
| IC711 | E-2 | Ⓒ |
| IC1001 | B-3 | Ⓕ |
| IC2001 | F-1 | Ⓒ |
| IC2002 | E-8 | Ⓕ |
| IC2003 | E-8 | Ⓕ |
| IC3001 | B-2 | Ⓒ |
| IC5001 | B-4 | Ⓒ |
| IC5501 | A-7 | Ⓕ |
| IC6001 | D-2 | Ⓕ |
| IC6002 | D-3 | Ⓕ |
| IC6003 | F-5 | Ⓒ |
| IC6004 | C-1 | Ⓕ |
| IC6005 | E-8 | Ⓒ |
| IC6006 | E-7 | Ⓒ |
| IC6007 | E-6 | Ⓒ |
| IC6009 | C-7 | Ⓒ |
| IC6010 | D-6 | Ⓒ |
| IC6011 | D-9 | Ⓒ |

**Transistor**

| | | |
|---|---|---|
| Q201 | E-5 | Ⓕ |
| Q301 | C-4 | Ⓒ |
| Q302 | D-7 | Ⓕ |
| Q701 | D-1 | Ⓒ |
| Q702 | E-1 | Ⓒ |
| Q703 | E-8 | Ⓕ |
| Q704 | D-1 | Ⓒ |
| Q706 | D-8 | Ⓕ |
| Q1001 | B-1 | Ⓕ |
| Q1003 | A-2 | Ⓕ |
| Q1004 | A-2 | Ⓕ |
| Q1010 | A-7 | Ⓒ |
| Q1062 | B-2 | Ⓕ |
| Q3001 | B-4 | Ⓕ |
| Q3002 | B-4 | Ⓕ |
| Q3010 | C-4 | Ⓕ |
| Q4001 | B-7 | Ⓕ |
| Q4002 | D-8 | Ⓕ |
| Q4003 | C-6 | Ⓕ |
| Q4004 | D-8 | Ⓕ |
| Q4005 | C-2 | Ⓒ |
| Q4006 | C-7 | Ⓕ |
| Q4007 | C-2 | Ⓒ |
| Q4009 | C-7 | Ⓕ |
| Q4014 | C-7 | Ⓕ |
| Q4801 | C-2 | Ⓒ |
| Q4802 | C-8 | Ⓕ |
| Q4804 | E-8 | Ⓒ |
| Q4805 | B-8 | Ⓕ |
| Q4806 | C-8 | Ⓕ |
| Q4807 | E-9 | Ⓒ |
| Q5001 | A-4 | Ⓒ |
| Q5002 | A-4 | Ⓒ |
| Q5003 | A-4 | Ⓒ |
| Q5501 | B-8 | Ⓕ |
| Q5502 | B-4 | Ⓕ |
| Q5503 | C-5 | Ⓕ |
| Q6001 | D-7 | Ⓒ |
| Q6002 | D-1 | Ⓕ |
| Q6003 | C-9 | Ⓒ |
| Q6004 | C-7 | Ⓒ |
| Q6005 | D-7 | Ⓒ |
| Q6201 | D-3 | Ⓕ |

**Transistor & Resistor**

| | | |
|---|---|---|
| QR302 | F-4 | Ⓒ |
| QR303 | F-4 | Ⓒ |
| QR304 | D-5 | Ⓒ |
| QR305 | D-5 | Ⓒ |
| QR306 | F-5 | Ⓕ |
| QR701 | E-1 | Ⓒ |
| QR1001 | A-7 | Ⓒ |
| QR1005 | A-7 | Ⓒ |
| QR1061 | A-7 | Ⓒ |
| QR1881 | E-6 | Ⓒ |
| QR1882 | E-6 | Ⓒ |
| QR2002 | F-2 | Ⓒ |
| QR3001 | A-2 | Ⓒ |
| QR4003 | C-1 | Ⓒ |
| QR4004 | C-1 | Ⓒ |
| QR4005 | C-8 | Ⓕ |
| QR4008 | C-7 | Ⓕ |
| QR5502 | B-4 | Ⓕ |
| QR5504 | B-7 | Ⓕ |
| QR5505 | B-5 | Ⓕ |
| QR6001 | C-3 | Ⓕ |
| QR6003 | D-1 | Ⓕ |
| QR6004 | C-2 | Ⓕ |
| QR6005 | E-7 | Ⓒ |
| QR6006 | D-7 | Ⓒ |
| QR6007 | D-8 | Ⓒ |
| QR6008 | D-8 | Ⓒ |
| QR6010 | D-7 | Ⓒ |
| QR6012 | D-3 | Ⓕ |
| QR6014 | C-2 | Ⓕ |
| QR6015 | C-1 | Ⓕ |
| QR6050 | C-2 | Ⓕ |
| QR6801 | A-1 | Ⓒ |

**Diode**

| | | |
|---|---|---|
| D301 | C-6 | Ⓕ |
| D303 | D-6 | Ⓒ |
| D304 | F-3 | Ⓒ |
| D1002 | A-1 | Ⓕ |
| D1006 | B-2 | Ⓕ |
| D1007 | B-2 | Ⓕ |
| D1009 | A-7 | Ⓒ |
| D1015 | A-1 | Ⓕ |
| D1020 | B-7 | Ⓒ |
| D1601 | C-1 | Ⓕ |
| D1603 | C-8 | Ⓒ |
| D1706 | E-6 | Ⓒ |
| D3001 | C-8 | Ⓒ |
| D3004 | C-4 | Ⓕ |
| D6001 | C-3 | Ⓕ |
| D6002 | C-3 | Ⓕ |
| D6004 | E-8 | Ⓒ |
| D6006 | C-6 | Ⓒ |
| D6007 | C-6 | Ⓒ |
| D6008 | C-6 | Ⓒ |
| D6009 | D-8 | Ⓒ |
| D6010 | E-3 | Ⓕ |
| D6011 | D-8 | Ⓒ |
| D6012 | D-8 | Ⓒ |
| D6013 | D-8 | Ⓒ |
| D6014 | D-3 | Ⓕ |
| D6015 | D-3 | Ⓕ |
| D6016 | D-1 | Ⓕ |
| D6018 | D-8 | Ⓒ |
| D6022 | D-5 | Ⓒ |
| D6201 | D-3 | Ⓕ |

**Transformer**

| | | |
|---|---|---|
| T1001 | B-7 | Ⓒ |
| T1002 | B-9 | Ⓒ |
| T4001 | C-1 | Ⓒ |

**Test Point**

| | | |
|---|---|---|
| CL301 | E-4 | Ⓕ |
| CL302 | E-4 | Ⓕ |
| CL303 | E-4 | Ⓕ |
| CL304 | E-5 | Ⓕ |
| CL305 | E-5 | Ⓕ |
| CL306 | F-7 | Ⓕ |
| CL307 | D-7 | Ⓕ |
| CL308 | C-6 | Ⓕ |
| CL309 | C-5 | Ⓕ |
| CL310 | C-6 | Ⓕ |
| CL1001 | D-4 | Ⓕ |
| CL1003 | A-2 | Ⓕ |
| CL1004 | A-1 | Ⓕ |
| CL1005 | A-2 | Ⓕ |
| CL1006 | A-2 | Ⓕ |
| CL1007 | A-2 | Ⓕ |
| CL1012 | C-4 | Ⓕ |
| CL1014 | A-3 | Ⓕ |
| CL1015 | E-8 | Ⓕ |
| CL1017 | E-3 | Ⓕ |
| CL2001 | F-8 | Ⓕ |
| CL2002 | E-8 | Ⓕ |
| CL2003 | F-8 | Ⓕ |
| CL3001 | B-6 | Ⓕ |
| CL3003 | B-6 | Ⓕ |
| CL3004 | A-6 | Ⓕ |
| CL3005 | B-7 | Ⓕ |
| CL3006 | A-8 | Ⓕ |
| CL3007 | B-6 | Ⓕ |
| CL3008 | B-7 | Ⓕ |
| CL4002 | D-9 | Ⓕ |
| CL4003 | C-8 | Ⓕ |
| CL4004 | C-7 | Ⓕ |
| CL4005 | C-9 | Ⓕ |
| CL5601 | C-6 | Ⓕ |
| CL5602 | B-4 | Ⓕ |
| CL5606 | C-6 | Ⓕ |
| CL5608 | B-6 | Ⓕ |
| CL6002 | D-4 | Ⓕ |
| CL6003 | F-8 | Ⓕ |
| CL6005 | D-3 | Ⓕ |
| CL6009 | D-1 | Ⓕ |
| CL6011 | C-4 | Ⓕ |
| CL6012 | C-1 | Ⓕ |
| CL6013 | D-4 | Ⓕ |
| CL6015 | D-3 | Ⓕ |
| CL6016 | D-3 | Ⓕ |
| CL6017 | D-3 | Ⓕ |
| CL6018 | D-3 | Ⓕ |
| CL6019 | E-4 | Ⓕ |
| CL6020 | D-3 | Ⓕ |
| CL6021 | E-3 | Ⓕ |
| CL6022 | E-4 | Ⓕ |
| CL6206 | E-2 | Ⓕ |
| CL6207 | E-2 | Ⓕ |
| CL6208 | E-2 | Ⓕ |
| CL6210 | E-2 | Ⓕ |
| CL6211 | E-2 | Ⓕ |
| TL1001 | B-2 | Ⓕ |
| TL1002 | B-1 | Ⓕ |
| TL5005 | A-6 | Ⓕ |
| CKA1 | F-5 | Ⓕ |
| CKA2 | F-5 | Ⓕ |
| CKA3 | F-5 | Ⓕ |
| CKA4 | F-5 | Ⓕ |
| CKA5 | F-5 | Ⓕ |
| CKA6 | F-5 | Ⓕ |
| CKA7 | F-5 | Ⓕ |
| CKA8 | F-5 | Ⓕ |
| CKA10 | F-4 | Ⓕ |
| CKA11 | F-4 | Ⓕ |
| CKA12 | F-5 | Ⓕ |
| CKA13 | F-5 | Ⓕ |
| CKA14 | F-5 | Ⓕ |
| CKA15 | F-4 | Ⓕ |
| CKA17 | E-4 | Ⓕ |
| CKA18 | F-5 | Ⓕ |
| CKA19 | E-4 | Ⓕ |
| CKA20 | F-4 | Ⓕ |
| CKA21 | F-4 | Ⓕ |
| CKA22 | F-5 | Ⓕ |
| CKA23 | F-5 | Ⓕ |
| CKA24 | F-5 | Ⓕ |
| CKA26 | E-4 | Ⓕ |
| CKB1 | C-1 | Ⓕ |
| CKB4 | C-1 | Ⓕ |
| CKC1 | F-9 | Ⓕ |
| CKC2 | F-9 | Ⓕ |
| CKC3 | F-9 | Ⓕ |
| CKC4 | E-9 | Ⓕ |
| CKC5 | E-8 | Ⓕ |
| CKC6 | F-8 | Ⓕ |
| CKD2 | E-3 | Ⓕ |
| CKD3 | E-3 | Ⓕ |
| CKD4 | E-2 | Ⓕ |
| CKD5 | E-2 | Ⓕ |
| CKE1 | A-5 | Ⓕ |
| CKE5 | A-5 | Ⓕ |
| CKE6 | A-6 | Ⓕ |
| CKE7 | A-6 | Ⓕ |
| CKE9 | A-6 | Ⓕ |
| CKE10 | A-6 | Ⓕ |
| CKE11 | A-6 | Ⓕ |
| CKE12 | A-6 | Ⓕ |
| CKF1 | F-7 | Ⓕ |
| CKF2 | F-7 | Ⓕ |
| CKF3 | F-6 | Ⓕ |
| CKF4 | F-6 | Ⓕ |
| CKF6 | F-6 | Ⓕ |
| CKF7 | F-6 | Ⓕ |
| CKF9 | F-5 | Ⓕ |
| CKG1 | E-6 | Ⓕ |
| CKG2 | E-6 | Ⓕ |
| CKG3 | E-7 | Ⓕ |
| CKG4 | E-6 | Ⓕ |
| CKG5 | E-6 | Ⓕ |
| CKG6 | E-6 | Ⓕ |
| CKG8 | E-7 | Ⓕ |
| CKG9 | E-7 | Ⓕ |
| CKG10 | E-7 | Ⓕ |
| CKG11 | E-7 | Ⓕ |
| CKG12 | E-7 | Ⓕ |
| CKH1 | E-1 | Ⓕ |
| CKH2 | E-1 | Ⓕ |
| CKJ1 | D-1 | Ⓕ |
| CKJ4 | E-1 | Ⓕ |
| CKK2 | E-8 | Ⓕ |
| CKK3 | E-8 | Ⓕ |
| CKK4 | E-7 | Ⓕ |
| CKK5 | F-7 | Ⓕ |
| CKK6 | F-7 | Ⓕ |
| CKK7 | E-8 | Ⓕ |
| CKK8 | F-8 | Ⓕ |
| CKK10 | E-7 | Ⓕ |
| CKK12 | E-8 | Ⓕ |
| CKK13 | E-7 | Ⓕ |
| CKK15 | F-7 | Ⓕ |
| CKK17 | F-8 | Ⓕ |
| CKK18 | F-7 | Ⓕ |
| CKM1 | E-4 | Ⓕ |
| CKM2 | E-4 | Ⓕ |
| CKM6 | E-3 | Ⓕ |
| CKN1 | E-2 | Ⓕ |
| CKN2 | E-2 | Ⓕ |
| CKN3 | E-2 | Ⓕ |
| CKN5 | E-1 | Ⓕ |
| CKN6 | E-3 | Ⓕ |
| CKN7 | E-3 | Ⓕ |
| CKN8 | E-3 | Ⓕ |
| CKN9 | E-1 | Ⓕ |
| CKN10 | E-1 | Ⓕ |
| CKN12 | E-1 | Ⓕ |
| CKN14 | E-3 | Ⓕ |
| CKN15 | E-1 | Ⓕ |
| CKN16 | E-1 | Ⓕ |
| CKP1 | D-9 | Ⓕ |
| CKP2 | D-9 | Ⓕ |
| CKP3 | D-9 | Ⓕ |
| CKP4 | D-9 | Ⓕ |
| CKP5 | D-9 | Ⓕ |
| CKP6 | E-8 | Ⓕ |
| CKP7 | D-9 | Ⓕ |
| CKP8 | D-9 | Ⓕ |
| CKP10 | D-9 | Ⓕ |
| CKP11 | E-9 | Ⓕ |
| CKP12 | D-9 | Ⓕ |
| CKP13 | E-9 | Ⓕ |
| CKP14 | E-9 | Ⓕ |
| CKP15 | E-8 | Ⓕ |
| CKP17 | E-9 | Ⓕ |
| CKP18 | E-9 | Ⓕ |
| CKQ2 | F-8 | Ⓕ |
| CKQ3 | F-8 | Ⓕ |
| CKQ4 | E-3 | Ⓕ |
| CKQ5 | F-8 | Ⓕ |
| CKQ6 | F-8 | Ⓕ |
| CKQ7 | F-8 | Ⓕ |
| CKQ8 | F-8 | Ⓕ |
| CKS1 | A-8 | Ⓕ |
| CKS2 | A-8 | Ⓕ |
| CKS3 | A-8 | Ⓕ |
| CKS4 | A-9 | Ⓕ |
| CKS5 | A-9 | Ⓕ |
| CKS6 | A-9 | Ⓕ |
| CKS7 | A-8 | Ⓕ |
| CKS8 | B-9 | Ⓕ |
| CKS9 | B-9 | Ⓕ |
| CKS11 | B-9 | Ⓕ |
| CKS12 | B-9 | Ⓕ |
| CKS13 | B-9 | Ⓕ |
| CKV1 | A-7 | Ⓕ |
| CKV2 | A-7 | Ⓕ |
| CKW2 | C-9 | Ⓕ |
| CKW3 | C-9 | Ⓕ |
| CKW4 | E-2 | Ⓕ |
| CKW6 | D-9 | Ⓕ |
| CKW7 | D-8 | Ⓕ |
| CKY1 | A-5 | Ⓕ |
| CKY3 | A-5 | Ⓕ |
| CKY5 | A-5 | Ⓕ |
| CKY6 | B-5 | Ⓕ |
| CKY7 | A-5 | Ⓕ |
| CKY8 | A-4 | Ⓕ |
| CKY9 | A-3 | Ⓕ |
| CKY11 | A-4 | Ⓕ |
| CKY12 | A-4 | Ⓕ |
| CKY13 | B-4 | Ⓕ |
| CKY14 | A-4 | Ⓕ |
| CKY15 | A-4 | Ⓕ |
| CKY17 | A-4 | Ⓕ |
| CKY18 | A-3 | Ⓕ |
| CKY19 | A-4 | Ⓕ |
| CKY20 | A-4 | Ⓕ |
| CKY21 | A-4 | Ⓕ |
| CKY22 | A-3 | Ⓕ |
| CKY23 | A-3 | Ⓕ |
| CKY26 | A-3 | Ⓕ |
| CKY27 | A-3 | Ⓕ |
| CKY28 | B-5 | Ⓕ |
| CKY30 | A-3 | Ⓕ |
| CKY31 | A-3 | Ⓕ |
| CKY32 | A-3 | Ⓕ |
| CKY35 | C-6 | Ⓕ |
| CKY36 | A-3 | Ⓕ |
| CKY37 | B-5 | Ⓕ |
| CKY38 | A-5 | Ⓕ |
| CKY40 | A-5 | Ⓕ |
| CKZ1 | C-9 | Ⓕ |
| CKZ4 | D-9 | Ⓕ |
| CKZ6 | B-9 | Ⓕ |
| CKZ7 | B-9 | Ⓕ |
| CKZ10 | B-9 | Ⓕ |
| CKZ11 | B-9 | Ⓕ |

**Connector**

| | | |
|---|---|---|
| FP701 | E-9 | Ⓕ |
| FP2001 | C-2 | Ⓒ |
| FP2002 | F-2 | Ⓒ |
| FP4001 | C-9 | Ⓕ |
| FP4002 | B-1 | Ⓒ |
| FP5001 | A-6 | Ⓕ |
| FP6001 | E-1 | Ⓕ |
| FP6002 | E-2 | Ⓕ |
| FP6003 | F-6 | Ⓕ |
| FP6004 | F-8 | Ⓕ |
| FP6005 | E-1 | Ⓕ |
| FP6006 | F-5 | Ⓕ |
| P1001 | E-3 | Ⓕ |
| PP301 | E-7 | Ⓕ |
| PP3001 | A-4 | Ⓕ |
| PS1003 | C-9 | Ⓒ |
| PS3009 | D-9 | Ⓒ |

**Crystal Oscillator**

| | | |
|---|---|---|
| X301 | E-4 | Ⓒ |
| X302 | D-4 | Ⓕ |
| X5501 | C-2 | Ⓒ |
| X6001 | D-7 | Ⓒ |
| X6003 | D-6 | Ⓒ |

**Coil**

| | | |
|---|---|---|
| L301 | D-4 | Ⓒ |
| L302 | C-4 | Ⓒ |
| L304 | E-6 | Ⓕ |
| L307 | C-4 | Ⓒ |
| L316 | E-5 | Ⓕ |
| L321 | E-6 | Ⓕ |
| L322 | F-6 | Ⓕ |
| L326 | C-5 | Ⓒ |
| L703 | D-1 | Ⓒ |
| L704 | D-8 | Ⓕ |
| L1001 | B-8 | Ⓒ |
| L1002 | A-8 | Ⓒ |
| L1003 | C-7 | Ⓒ |
| L1004 | C-7 | Ⓒ |
| L1007 | A-8 | Ⓒ |
| L1008 | C-6 | Ⓒ |
| L1010 | B-6 | Ⓒ |
| L1011 | B-6 | Ⓒ |
| L1014 | C-3 | Ⓕ |
| L1062 | B-8 | Ⓒ |
| L2001 | E-1 | Ⓒ |
| L3002 | B-6 | Ⓕ |
| L3003 | A-7 | Ⓕ |
| L4005 | C-9 | Ⓕ |
| L5001 | B-6 | Ⓕ |
| L5002 | B-6 | Ⓕ |
| L5003 | B-5 | Ⓕ |
| L5004 | B-5 | Ⓕ |
| L5501 | B-6 | Ⓕ |
| L5502 | A-7 | Ⓕ |
| L5503 | B-3 | Ⓒ |
| L5504 | A-8 | Ⓕ |
| L5506 | B-5 | Ⓕ |
| L5507 | C-5 | Ⓕ |
| LB301 | D-4 | Ⓒ |
| LB302 | D-4 | Ⓒ |
| LB303 | D-3 | Ⓒ |
| LB304 | D-4 | Ⓒ |
| LB305 | D-3 | Ⓒ |
| LB306 | F-3 | Ⓒ |
| LB307 | E-5 | Ⓒ |
| LB308 | F-5 | Ⓒ |
| LB309 | E-3 | Ⓒ |
| LB310 | F-7 | Ⓕ |
| LB311 | E-5 | Ⓕ |
| LB312 | D-5 | Ⓒ |
| LB313 | E-7 | Ⓕ |
| LB1601 | B-1 | Ⓕ |
| LB1602 | C-2 | Ⓕ |
| LB6001 | E-9 | Ⓒ |

**Capacitor**

| | | |
|---|---|---|
| C301 | D-4 | Ⓒ |
| C302 | D-4 | Ⓒ |
| C304 | C-6 | Ⓕ |
| C305 | C-6 | Ⓕ |
| C307 | C-6 | Ⓕ |
| C308 | C-6 | Ⓕ |
| C309 | C-4 | Ⓒ |
| C310 | E-6 | Ⓕ |
| C311 | E-6 | Ⓕ |
| C312 | E-4 | Ⓒ |
| C315 | E-6 | Ⓕ |
| C316 | D-3 | Ⓒ |
| C318 | E-7 | Ⓕ |
| C319 | E-7 | Ⓕ |
| C320 | E-5 | Ⓕ |
| C322 | D-4 | Ⓒ |
| C323 | E-5 | Ⓕ |
| C324 | D-4 | Ⓒ |
| C325 | C-4 | Ⓒ |
| C326 | D-4 | Ⓒ |
| C327 | D-5 | Ⓒ |
| C328 | E-5 | Ⓒ |
| C329 | D-4 | Ⓒ |
| C330 | E-3 | Ⓒ |
| C331 | E-4 | Ⓒ |
| C332 | E-7 | Ⓕ |
| C334 | D-4 | Ⓒ |
| C335 | D-5 | Ⓒ |
| C336 | D-3 | Ⓒ |
| C337 | D-3 | Ⓒ |
| C338 | E-5 | Ⓕ |
| C339 | E-5 | Ⓕ |
| C340 | F-4 | Ⓒ |
| C341 | F-4 | Ⓒ |
| C342 | F-4 | Ⓒ |
| C343 | E-4 | Ⓕ |
| C344 | D-5 | Ⓒ |
| C345 | E-5 | Ⓕ |
| C346 | E-6 | Ⓒ |
| C348 | D-5 | Ⓒ |
| C349 | D-5 | Ⓒ |
| C350 | D-7 | Ⓕ |
| C351 | D-2 | Ⓒ |
| C352 | D-7 | Ⓕ |
| C353 | C-3 | Ⓒ |
| C355 | D-5 | Ⓒ |
| C356 | E-5 | Ⓒ |
| C357 | E-5 | Ⓒ |
| C358 | F-3 | Ⓒ |
| C359 | F-4 | Ⓒ |
| C360 | E-6 | Ⓕ |
| C361 | F-6 | Ⓕ |
| C362 | F-5 | Ⓕ |
| C364 | E-6 | Ⓕ |
| C365 | E-4 | Ⓒ |
| C366 | F-4 | Ⓒ |
| C367 | F-4 | Ⓒ |
| C368 | E-4 | Ⓒ |
| C369 | E-3 | Ⓒ |
| C370 | E-3 | Ⓒ |
| C371 | E-4 | Ⓒ |
| C372 | E-4 | Ⓒ |
| C374 | F-6 | Ⓕ |
| C375 | E-6 | Ⓕ |
| C376 | F-3 | Ⓒ |
| C377 | E-7 | Ⓕ |
| C379 | E-3 | Ⓒ |
| C380 | D-4 | Ⓕ |
| C381 | E-3 | Ⓒ |
| C382 | F-3 | Ⓒ |
| C383 | C-5 | Ⓕ |
| C385 | C-5 | Ⓒ |
| C386 | C-6 | Ⓒ |
| C701 | D-2 | Ⓒ |
| C702 | D-7 | Ⓕ |
| C710 | D-8 | Ⓕ |
| C711 | E-1 | Ⓒ |
| C713 | E-8 | Ⓕ |
| C714 | D-8 | Ⓕ |
| C715 | E-2 | Ⓒ |
| C716 | D-8 | Ⓕ |
| C718 | E-2 | Ⓒ |
| C719 | D-7 | Ⓕ |
| C721 | D-7 | Ⓕ |
| C724 | D-2 | Ⓒ |
| C727 | D-2 | Ⓒ |
| C1001 | B-8 | Ⓒ |
| C1003 | A-2 | Ⓕ |
| C1004 | B-7 | Ⓒ |
| C1005 | B-7 | Ⓒ |
| C1008 | A-2 | Ⓕ |
| C1009 | B-7 | Ⓒ |
| C1010 | B-6 | Ⓒ |
| C1012 | A-2 | Ⓕ |
| C1014 | A-3 | Ⓕ |
| C1017 | A-2 | Ⓕ |
| C1019 | B-6 | Ⓒ |
| C1020 | B-2 | Ⓕ |
| C1022 | B-6 | Ⓒ |
| C1024 | A-3 | Ⓕ |
| C1025 | A-7 | Ⓒ |
| C1026 | B-7 | Ⓒ |
| C1027 | A-7 | Ⓒ |
| C1028 | A-7 | Ⓒ |
| C1030 | B-7 | Ⓒ |
| C1032 | B-7 | Ⓒ |
| C1033 | B-3 | Ⓕ |
| C1034 | B-3 | Ⓕ |
| C1035 | A-3 | Ⓕ |
| C1036 | B-7 | Ⓒ |
| C1037 | B-7 | Ⓒ |
| C1041 | C-1 | Ⓕ |
| C1042 | C-2 | Ⓕ |
| C1046 | A-7 | Ⓒ |
| C1051 | B-2 | Ⓕ |
| C1055 | B-7 | Ⓒ |
| C1057 | B-3 | Ⓕ |
| C1064 | B-2 | Ⓕ |
| C1066 | B-8 | Ⓒ |
| C1071 | B-2 | Ⓕ |
| C1073 | B-7 | Ⓒ |
| C1080 | B-3 | Ⓕ |
| C1081 | B-7 | Ⓒ |
| C1603 | C-8 | Ⓒ |
| C1708 | E-7 | Ⓒ |
| C2001 | F-8 | Ⓕ |
| C2002 | F-8 | Ⓕ |
| C2003 | F-8 | Ⓕ |
| C2004 | F-9 | Ⓕ |
| C2005 | F-9 | Ⓕ |
| C2006 | E-1 | Ⓒ |
| C2007 | F-9 | Ⓕ |
| C2008 | E-1 | Ⓒ |
| C2009 | F-1 | Ⓒ |
| C2010 | F-1 | Ⓒ |
| C2011 | F-8 | Ⓕ |
| C2012 | F-1 | Ⓒ |
| C2013 | F-1 | Ⓒ |
| C2014 | F-1 | Ⓒ |
| C2015 | F-9 | Ⓕ |
| C2016 | F-8 | Ⓕ |
| C2017 | F-8 | Ⓕ |
| C2018 | F-8 | Ⓕ |
| C2020 | F-8 | Ⓕ |
| C2021 | F-8 | Ⓕ |
| C2022 | F-8 | Ⓕ |
| C2023 | F-8 | Ⓕ |
| C2025 | E-8 | Ⓕ |
| C2026 | E-8 | Ⓕ |
| C2027 | E-8 | Ⓕ |
| C2028 | F-7 | Ⓕ |
| C2029 | F-1 | Ⓒ |
| C2031 | F-1 | Ⓒ |
| C2033 | F-2 | Ⓒ |
| C2040 | E-9 | Ⓕ |
| C2041 | E-9 | Ⓕ |
| C2042 | E-9 | Ⓕ |
| C2043 | F-9 | Ⓕ |
| C2070 | F-9 | Ⓕ |
| C3001 | A-4 | Ⓒ |
| C3004 | A-8 | Ⓕ |
| C3005 | B-3 | Ⓒ |
| C3006 | B-4 | Ⓕ |
| C3008 | A-3 | Ⓒ |
| C3009 | B-7 | Ⓕ |
| C3016 | A-3 | Ⓒ |
| C3017 | A-7 | Ⓕ |
| C3018 | A-8 | Ⓕ |
| C3019 | A-2 | Ⓒ |
| C3020 | A-2 | Ⓒ |
| C3022 | A-7 | Ⓕ |
| C3023 | A-2 | Ⓒ |
| C3024 | A-2 | Ⓒ |
| C3026 | A-2 | Ⓒ |
| C3027 | A-2 | Ⓒ |
| C3028 | C-6 | Ⓒ |
| C3029 | C-4 | Ⓒ |
| C3030 | A-2 | Ⓒ |
| C3031 | A-2 | Ⓒ |
| C3035 | B-8 | Ⓕ |
| C4001 | C-1 | Ⓒ |
| C4002 | C-7 | Ⓕ |
| C4003 | C-8 | Ⓕ |
| C4004 | B-8 | Ⓕ |
| C4005 | C-8 | Ⓕ |
| C4008 | C-3 | Ⓒ |
| C4009 | B-2 | Ⓒ |
| C4010 | C-2 | Ⓒ |
| C4011 | C-2 | Ⓒ |
| C4012 | C-9 | Ⓕ |
| C4013 | C-2 | Ⓒ |
| C4014 | C-8 | Ⓕ |
| C4015 | D-8 | Ⓕ |
| C4016 | D-1 | Ⓒ |
| C4017 | D-1 | Ⓒ |
| C4018 | C-2 | Ⓒ |
| C4019 | C-8 | Ⓕ |
| C4020 | D-2 | Ⓒ |
| C4021 | C-8 | Ⓕ |
| C4022 | C-8 | Ⓕ |
| C4023 | C-1 | Ⓒ |
| C4024 | C-2 | Ⓒ |
| C4025 | B-8 | Ⓕ |
| C4026 | B-7 | Ⓕ |
| C4027 | B-8 | Ⓕ |
| C4028 | B-7 | Ⓕ |
| C4029 | C-7 | Ⓕ |
| C4030 | C-7 | Ⓕ |
| C4031 | B-7 | Ⓕ |
| C4032 | C-7 | Ⓕ |
| C4033 | C-2 | Ⓒ |
| C4034 | B-8 | Ⓕ |
| C4035 | B-8 | Ⓕ |
| C4036 | B-8 | Ⓕ |
| C4037 | D-9 | Ⓒ |
| C4038 | C-3 | Ⓒ |
| C4045 | B-8 | Ⓕ |
| C4801 | C-1 | Ⓒ |
| C4803 | C-1 | Ⓒ |
| C4804 | B-2 | Ⓒ |
| C4805 | C-2 | Ⓒ |
| C4806 | C-8 | Ⓕ |
| C4807 | C-8 | Ⓕ |
| C4808 | C-8 | Ⓕ |
| C4809 | C-2 | Ⓒ |
| C4810 | B-8 | Ⓕ |
| C4811 | C-8 | Ⓕ |
| C4813 | D-1 | Ⓕ |
| C4016 | E-8 | Ⓒ |
| C4817 | E-9 | Ⓒ |
| C4818 | F-8 | Ⓒ |
| C5001 | A-4 | Ⓒ |
| C5002 | A-4 | Ⓒ |
| C5003 | A-4 | Ⓒ |
| C5004 | A-4 | Ⓒ |
| C5005 | A-4 | Ⓒ |
| C5006 | A-4 | Ⓒ |
| C5007 | A-4 | Ⓒ |
| C5008 | A-4 | Ⓒ |
| C5009 | A-4 | Ⓒ |
| C5010 | A-4 | Ⓒ |
| C5011 | A-4 | Ⓒ |
| C5012 | B-5 | Ⓕ |
| C5013 | B-6 | Ⓕ |
| C5014 | B-6 | Ⓕ |
| C5016 | B-6 | Ⓕ |
| C5017 | B-4 | Ⓒ |
| C5018 | B-5 | Ⓕ |
| C5019 | B-4 | Ⓒ |
| C5020 | B-4 | Ⓒ |
| C5021 | B-5 | Ⓒ |
| C5022 | A-5 | Ⓒ |
| C5023 | B-4 | Ⓒ |
| C5041 | B-6 | Ⓕ |
| C5501 | B-7 | Ⓕ |
| C5502 | A-8 | Ⓕ |
| C5504 | B-7 | Ⓕ |
| C5505 | B-7 | Ⓕ |
| C5506 | B-7 | Ⓕ |
| C5507 | C-3 | Ⓒ |
| C5508 | A-3 | Ⓒ |
| C5509 | B-3 | Ⓒ |
| C5510 | B-7 | Ⓕ |
| C5511 | B-3 | Ⓒ |
| C5512 | B-3 | Ⓒ |
| C5513 | B-7 | Ⓕ |
| C5514 | B-7 | Ⓕ |
| C5515 | B-7 | Ⓕ |
| C5516 | B-7 | Ⓕ |
| C5517 | B-7 | Ⓕ |
| C5518 | B-7 | Ⓕ |
| C5519 | B-7 | Ⓕ |
| C5520 | B-7 | Ⓕ |
| C5521 | C-5 | Ⓕ |
| C5522 | B-5 | Ⓕ |
| C5523 | A-8 | Ⓕ |
| C5525 | B-3 | Ⓒ |
| C5526 | B-3 | Ⓒ |
| C5527 | B-7 | Ⓕ |
| C5530 | B-8 | Ⓕ |
| C5531 | B-7 | Ⓕ |
| C5534 | B-7 | Ⓕ |
| C6001 | E-8 | Ⓒ |
| C6002 | E-8 | Ⓒ |
| C6003 | E-8 | Ⓒ |
| C6004 | E-7 | Ⓒ |
| C6006 | D-7 | Ⓒ |
| C6007 | D-7 | Ⓒ |
| C6008 | D-7 | Ⓒ |
| C6009 | C-1 | Ⓕ |
| C6011 | E-8 | Ⓒ |
| C6014 | E-8 | Ⓒ |
| C6016 | D-7 | Ⓒ |
| C6018 | D-3 | Ⓕ |
| C6020 | E-6 | Ⓒ |
| C6021 | E-2 | Ⓕ |
| C6022 | D-7 | Ⓒ |
| C6023 | D-7 | Ⓒ |
| C6025 | D-8 | Ⓒ |
| C6026 | D-8 | Ⓒ |
| C6027 | D-7 | Ⓒ |
| C6029 | C-1 | Ⓕ |
| C6030 | E-8 | Ⓒ |
| C6031 | D-3 | Ⓕ |
| C6032 | E-3 | Ⓕ |
| C6038 | E-3 | Ⓕ |
| C6039 | D-9 | Ⓒ |
| C6048 | D-4 | Ⓕ |
| C6049 | E-8 | Ⓒ |
| C6050 | D-8 | Ⓒ |
| C6051 | E-8 | Ⓒ |
| C6060 | D-7 | Ⓒ |
| C6100 | D-8 | Ⓒ |
| C6201 | E-3 | Ⓕ |
| C6202 | D-7 | Ⓒ |
| C6203 | E-8 | Ⓒ |
| C6204 | E-7 | Ⓒ |
| C6205 | D-8 | Ⓒ |
| C6206 | E-7 | Ⓒ |
| C6207 | D-8 | Ⓒ |
| C6208 | D-7 | Ⓒ |
| C6209 | E-7 | Ⓒ |
| C6210 | E-7 | Ⓒ |

**Resistor**

| | | |
|---|---|---|
| R303 | D-5 | Ⓕ |
| R304 | D-5 | Ⓕ |
| R305 | C-4 | Ⓒ |
| R306 | C-6 | Ⓕ |
| R307 | C-6 | Ⓕ |
| R308 | C-6 | Ⓕ |
| R309 | C-5 | Ⓕ |
| R310 | C-4 | Ⓒ |
| R311 | C-4 | Ⓒ |
| R312 | D-4 | Ⓒ |
| R313 | D-4 | Ⓒ |
| R314 | D-7 | Ⓕ |
| R315 | E-5 | Ⓕ |
| R316 | E-6 | Ⓕ |
| R317 | E-6 | Ⓒ |
| R321 | E-6 | Ⓕ |
| R322 | E-6 | Ⓕ |
| R323 | E-6 | Ⓕ |
| R324 | F-5 | Ⓕ |
| R325 | E-7 | Ⓕ |
| R326 | E-7 | Ⓕ |
| R327 | F-5 | Ⓕ |
| R328 | E-6 | Ⓕ |
| R329 | C-4 | Ⓒ |
| R330 | F-4 | Ⓒ |
| R331 | E-5 | Ⓒ |
| R332 | F-4 | Ⓒ |
| R334 | D-5 | Ⓒ |
| R335 | E-5 | Ⓕ |
| R336 | E-5 | Ⓕ |
| R337 | F-4 | Ⓒ |
| R338 | C-4 | Ⓕ |
| R339 | F-6 | Ⓕ |
| R340 | F-4 | Ⓒ |

ADDRESS INFORMATION    Ⓒ...COMPONENT SIDE    Ⓕ...FOIL SIDE

Back Page:
CAMERA/MAIN C.B.A. Section

## CAM/MAIN C.B.A.

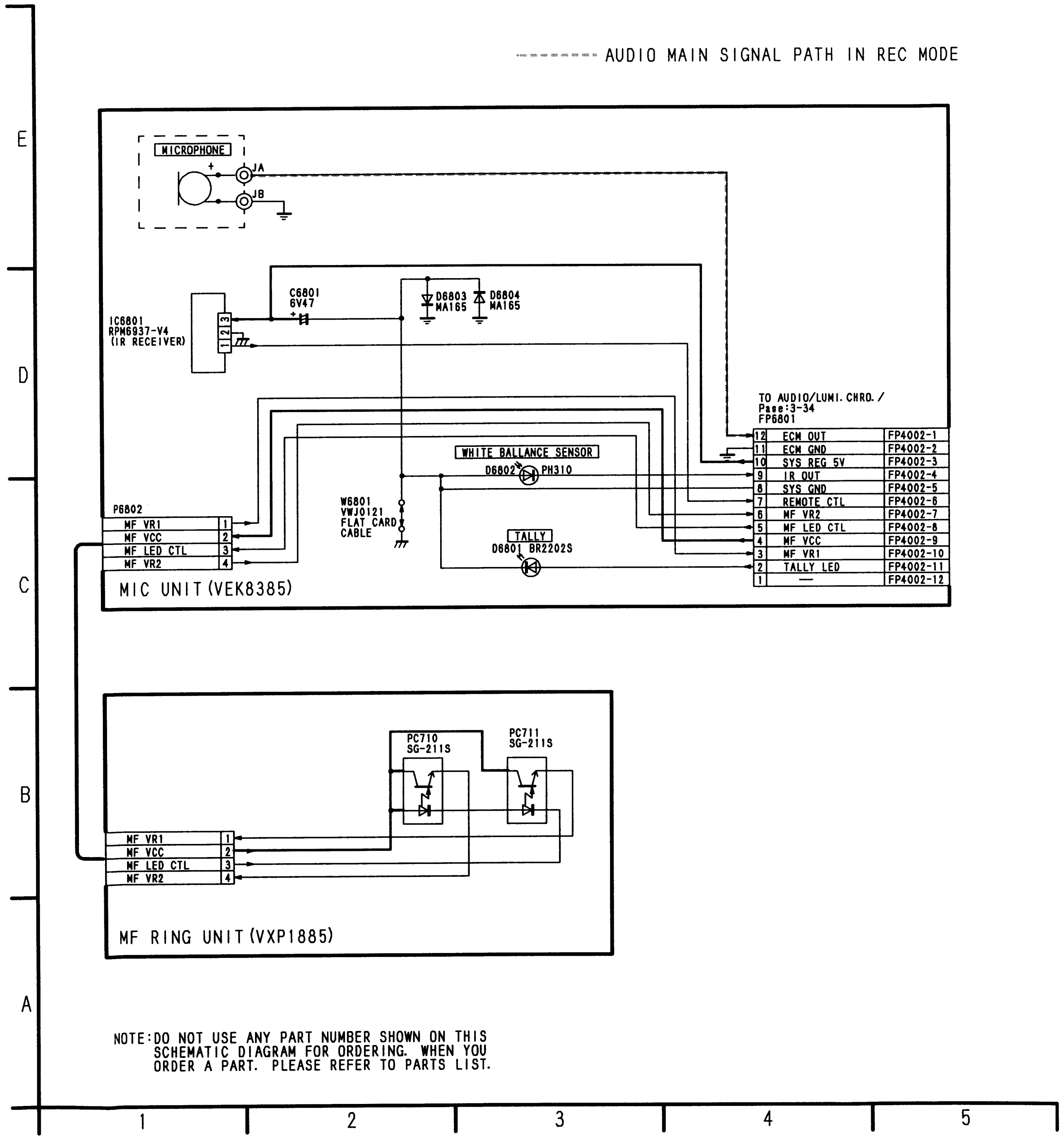
| | | |
|---|---|---|
| R341 | F-4 | © |
| R342 | D-5 | © |
| R343 | D-5 | © |
| R344 | D-7 | Ⓕ |
| R345 | D-7 | Ⓕ |
| R346 | D-7 | Ⓕ |
| R347 | C-7 | Ⓕ |
| R348 | C-3 | © |
| R349 | C-3 | © |
| R350 | C-4 | © |
| R351 | D-5 | Ⓕ |
| R352 | D-4 | Ⓕ |
| R353 | D-5 | © |
| R354 | D-5 | Ⓕ |
| R355 | D-5 | © |
| R356 | D-5 | © |
| R357 | D-6 | © |
| R359 | C-5 | © |
| R360 | F-4 | © |
| R361 | F-3 | © |
| R362 | F-5 | Ⓕ |
| R363 | E-3 | © |
| R364 | E-4 | © |
| R365 | E-4 | © |
| R372 | E-3 | © |
| R373 | F-6 | Ⓕ |
| R376 | C-5 | Ⓕ |
| R377 | E-7 | Ⓕ |
| R378 | E-4 | © |
| R379 | D-7 | Ⓕ |
| R384 | D-5 | © |
| R386 | F-6 | Ⓕ |
| R390 | E-5 | Ⓕ |
| R391 | E-5 | Ⓕ |
| R392 | E-5 | Ⓕ |
| R393 | E-4 | © |
| R394 | E-6 | Ⓕ |
| R395 | E-7 | Ⓕ |
| R396 | F-6 | Ⓕ |
| R398 | F-6 | Ⓕ |
| R399 | F-6 | Ⓕ |
| R400 | C-5 | Ⓕ |
| R401 | E-6 | Ⓕ |
| R402 | E-7 | Ⓕ |
| R403 | E-3 | © |
| R404 | E-3 | © |
| R405 | E-3 | © |
| R406 | E-3 | © |
| R407 | E-7 | Ⓕ |
| R408 | D-5 | © |
| R701 | D-2 | © |
| R702 | E-1 | © |
| R703 | E-8 | Ⓕ |
| R704 | D-8 | Ⓕ |
| R707 | E-1 | © |
| R709 | D-2 | © |
| R710 | D-7 | Ⓕ |
| R716 | D-8 | Ⓕ |
| R717 | D-8 | Ⓕ |
| R718 | D-8 | Ⓕ |
| R722 | D-7 | Ⓕ |
| R723 | D-7 | Ⓕ |
| R724 | D-7 | Ⓕ |
| R726 | E-2 | © |
| R727 | E-8 | Ⓕ |
| R728 | E-8 | Ⓕ |
| R729 | E-8 | Ⓕ |
| R730 | E-8 | Ⓕ |
| R731 | E-8 | Ⓕ |
| R732 | E-8 | Ⓕ |
| R733 | E-7 | Ⓕ |
| R734 | E-8 | Ⓕ |
| R735 | E-2 | © |
| R736 | E-2 | © |
| R737 | E-7 | Ⓕ |
| R738 | E-7 | Ⓕ |
| R740 | E-7 | Ⓕ |
| R741 | D-7 | Ⓕ |
| R742 | E-2 | © |
| R743 | E-2 | © |
| R745 | D-8 | Ⓕ |
| R761 | D-7 | Ⓕ |
| R1001 | B-7 | © |
| R1002 | B-3 | Ⓕ |
| R1005 | B-8 | © |
| R1006 | B-8 | © |
| R1007 | A-2 | Ⓕ |
| R1008 | A-3 | Ⓕ |
| R1009 | A-3 | Ⓕ |
| R1012 | A-3 | Ⓕ |
| R1013 | A-3 | Ⓕ |
| R1014 | B-7 | © |
| R1015 | B-7 | © |
| R1016 | B-7 | © |
| R1017 | B-7 | © |
| R1018 | B-7 | © |
| R1019 | B-7 | © |
| R1020 | B-7 | © |
| R1021 | B-3 | Ⓕ |
| R1022 | B-2 | Ⓕ |
| R1023 | A-2 | Ⓕ |
| R1024 | B-7 | © |
| R1025 | B-7 | © |
| R1035 | B-2 | Ⓕ |
| R1038 | B-3 | Ⓕ |
| R1039 | B-7 | © |
| R1040 | A-3 | Ⓕ |
| R1051 | B-2 | Ⓕ |
| R1052 | B-2 | Ⓕ |
| R1057 | A-3 | Ⓕ |
| R1063 | A-7 | © |
| R1065 | B-1 | Ⓕ |
| R1066 | A-7 | © |
| R1067 | A-7 | © |
| R1068 | A-7 | © |
| R1069 | A-7 | © |
| R1071 | B-3 | Ⓕ |
| R1072 | B-3 | Ⓕ |
| R1073 | B-3 | Ⓕ |
| R1085 | B-3 | Ⓕ |
| R1086 | B-7 | © |
| R1601 | A-8 | © |
| R1602 | C-1 | Ⓕ |
| R1603 | C-2 | Ⓕ |
| R1699 | C-1 | Ⓕ |
| R1724 | E-7 | © |
| R1726 | E-6 | © |
| R1727 | E-6 | © |
| R1805 | B-6 | © |
| R1806 | B-3 | Ⓕ |
| R1807 | A-3 | Ⓕ |
| R1883 | E-6 | © |
| R2001 | F-9 | Ⓕ |
| R2002 | E-9 | Ⓕ |
| R2003 | F-9 | Ⓕ |
| R2004 | F-9 | Ⓕ |
| R2005 | F-9 | Ⓕ |
| R2006 | F-9 | Ⓕ |
| R2007 | E-1 | © |
| R2008 | E-1 | © |
| R2009 | E-1 | © |
| R2010 | F-1 | © |
| R2011 | F-9 | Ⓕ |
| R2012 | F-7 | Ⓕ |
| R2015 | F-8 | Ⓕ |
| R2016 | F-8 | Ⓕ |
| R2017 | F-8 | Ⓕ |
| R2018 | E-2 | © |
| R2019 | E-8 | Ⓕ |
| R2020 | F-8 | Ⓕ |
| R2021 | F-7 | Ⓕ |
| R2022 | F-8 | Ⓕ |
| R2024 | F-2 | © |
| R2040 | E-9 | Ⓕ |
| R2041 | E-9 | Ⓕ |
| R2042 | E-9 | Ⓕ |
| R3001 | A-6 | Ⓕ |
| R3004 | A-4 | © |
| R3005 | A-7 | Ⓕ |
| R3006 | A-3 | © |
| R3007 | A-3 | © |
| R3009 | A-7 | Ⓕ |
| R3010 | A-7 | Ⓕ |
| R3013 | A-8 | Ⓕ |
| R3015 | A-8 | Ⓕ |
| R3018 | A-2 | © |
| R3020 | B-6 | Ⓕ |
| R3022 | A-7 | Ⓕ |
| R3023 | A-7 | Ⓕ |
| R3025 | B-7 | Ⓕ |
| R3026 | B-7 | Ⓕ |
| R3034 | C-2 | © |
| R3057 | C-4 | Ⓕ |
| R3058 | B-4 | Ⓕ |
| R3059 | B-4 | Ⓕ |
| R3060 | D-8 | © |
| R4001 | C-1 | © |
| R4002 | C-2 | © |
| R4003 | C-2 | © |
| R4004 | B-7 | Ⓕ |
| R4005 | C-2 | © |
| R4006 | C-1 | © |
| R4007 | C-7 | Ⓕ |
| R4008 | C-8 | Ⓕ |
| R4009 | B-8 | Ⓕ |
| R4010 | D-8 | Ⓕ |
| R4011 | C-7 | Ⓕ |
| R4012 | C-8 | Ⓕ |
| R4013 | D-8 | Ⓕ |
| R4014 | D-1 | © |
| R4015 | D-8 | Ⓕ |
| R4016 | D-8 | Ⓕ |
| R4017 | C-8 | Ⓕ |
| R4018 | D-9 | © |
| R4019 | C-7 | Ⓕ |
| R4020 | C-7 | Ⓕ |
| R4021 | C-7 | Ⓕ |
| R4022 | B-7 | Ⓕ |
| R4023 | D-8 | Ⓕ |
| R4024 | B-7 | Ⓕ |
| R4025 | C-1 | © |
| R4026 | C-2 | © |
| R4027 | C-7 | Ⓕ |
| R4028 | C-7 | Ⓕ |
| R4029 | B-7 | Ⓕ |
| R4030 | C-7 | Ⓕ |
| R4031 | C-7 | Ⓕ |
| R4032 | B-7 | Ⓕ |
| R4033 | B-7 | Ⓕ |
| R4034 | C-6 | © |
| R4035 | C-8 | Ⓕ |
| R4036 | C-7 | Ⓕ |
| R4037 | B-7 | Ⓕ |
| R4038 | C-8 | Ⓕ |
| R4039 | C-2 | © |
| R4040 | C-7 | Ⓕ |
| R4041 | B-7 | Ⓕ |
| R4042 | B-7 | Ⓕ |
| R4043 | C-2 | © |
| R4046 | C-2 | © |
| R4047 | C-2 | © |
| R4050 | C-7 | Ⓕ |
| R4060 | C-7 | Ⓕ |
| R4801 | C-1 | © |
| R4802 | C-2 | © |
| R4803 | C-2 | © |
| R4804 | C-2 | © |
| R4805 | B-2 | © |
| R4806 | B-2 | © |
| R4807 | C-8 | Ⓕ |
| R4808 | C-8 | Ⓕ |
| R4809 | C-8 | Ⓕ |
| R4811 | B-8 | Ⓕ |
| R4814 | E-9 | © |
| R4815 | E-8 | © |
| R4816 | E-9 | © |
| R4818 | E-9 | © |
| R4819 | E-9 | © |
| R4820 | E-8 | © |
| R4821 | E-8 | © |
| R4822 | E-8 | © |
| R4824 | C-8 | Ⓕ |
| R4826 | C-8 | Ⓕ |
| R4828 | C-8 | Ⓕ |
| R4829 | C-8 | Ⓕ |
| R5001 | B-5 | Ⓕ |
| R5002 | A-4 | © |
| R5003 | A-4 | © |
| R5004 | B-6 | Ⓕ |
| R5005 | B-4 | © |
| R5007 | A-4 | © |
| R5008 | A-5 | © |
| R5010 | B-4 | © |
| R5500 | B-7 | Ⓕ |
| R5502 | C-4 | © |
| R5503 | C-5 | Ⓕ |
| R5504 | B-7 | Ⓕ |
| R5505 | B-7 | Ⓕ |
| R5508 | B-4 | © |
| R5510 | B-4 | © |
| R5513 | B-7 | Ⓕ |
| R5514 | A-7 | Ⓕ |
| R5515 | A-8 | Ⓕ |
| R5516 | B-4 | Ⓕ |
| R5517 | B-4 | Ⓕ |
| R5521 | A-8 | Ⓕ |
| R5522 | C-5 | Ⓕ |
| R5523 | C-5 | Ⓕ |
| R5524 | C-5 | Ⓕ |
| R5526 | B-5 | Ⓕ |
| R5527 | B-7 | Ⓕ |
| R6001 | E-7 | © |
| R6002 | D-8 | © |
| R6003 | D-1 | Ⓕ |
| R6004 | D-1 | Ⓕ |
| R6005 | E-8 | © |
| R6006 | D-8 | © |
| R6007 | F-5 | © |
| R6008 | C-7 | © |
| R6009 | E-2 | Ⓕ |
| R6010 | E-2 | Ⓕ |
| R6011 | E-2 | Ⓕ |
| R6014 | E-7 | © |
| R6015 | E-7 | © |
| R6016 | E-7 | © |
| R6017 | C-9 | © |
| R6018 | E-7 | © |
| R6019 | D-7 | © |
| R6020 | C-7 | © |
| R6021 | D-1 | Ⓕ |
| R6022 | D-1 | Ⓕ |
| R6023 | E-2 | Ⓕ |
| R6024 | C-8 | © |
| R6025 | D-3 | Ⓕ |
| R6026 | E-2 | Ⓕ |
| R6027 | F-6 | © |
| R6028 | E-3 | Ⓕ |
| R6029 | F-4 | © |
| R6031 | F-5 | © |
| R6032 | D-3 | Ⓕ |
| R6033 | E-2 | Ⓕ |
| R6034 | F-5 | © |
| R6036 | E-7 | © |
| R6037 | E-7 | © |
| R6038 | D-7 | © |
| R6039 | D-3 | Ⓕ |
| R6040 | C-3 | Ⓕ |
| R6041 | E-7 | © |
| R6042 | E-1 | Ⓕ |
| R6044 | D-8 | © |
| R6045 | D-8 | © |
| R6046 | C-3 | Ⓕ |
| R6047 | C-3 | Ⓕ |
| R6048 | D-3 | Ⓕ |
| R6049 | C-3 | Ⓕ |
| R6051 | F-5 | © |
| R6052 | F-5 | © |
| R6053 | F-5 | © |
| R6054 | F-5 | © |
| R6055 | E-2 | Ⓕ |
| R6056 | D-8 | © |
| R6057 | F-5 | © |
| R6058 | C-3 | Ⓕ |
| R6059 | C-1 | Ⓕ |
| R6060 | E-8 | © |
| R6065 | D-8 | © |
| R6066 | C-8 | © |
| R6067 | E-8 | © |
| R6068 | E-8 | © |
| R6069 | E-8 | © |
| R6071 | D-7 | © |
| R6072 | D-7 | © |
| R6073 | D-7 | © |
| R6074 | D-7 | © |
| R6087 | C-3 | Ⓕ |
| R6088 | D-7 | © |
| R6089 | E-2 | Ⓕ |
| R6091 | D-8 | © |
| R6092 | D-7 | © |
| R6093 | D-3 | Ⓕ |
| R6095 | E-2 | Ⓕ |
| R6098 | E-7 | © |
| R6099 | E-7 | © |
| R6106 | D-3 | Ⓕ |
| R6115 | C-4 | Ⓕ |
| R6116 | D-1 | Ⓕ |
| R6144 | D-8 | © |
| R6145 | D-8 | © |
| R6154 | C-7 | © |
| R6202 | D-3 | Ⓕ |
| R6203 | D-3 | Ⓕ |
| R6204 | E-2 | Ⓕ |
| R6205 | E-2 | Ⓕ |
| R6206 | D-8 | © |
| R6207 | D-8 | © |
| R6208 | D-8 | © |
| R6209 | D-7 | © |
| R6210 | D-3 | Ⓕ |
| R6211 | D-3 | Ⓕ |
| R6801 | C-9 | Ⓕ |
| R6802 | A-1 | © |

**Resistor Array**

| | | |
|---|---|---|
| RA310 | D-4 | Ⓕ |
| RA311 | D-5 | © |
| RA704 | E-1 | © |
| RA6001 | D-1 | Ⓕ |
| RA6002 | C-3 | Ⓕ |
| RA6003 | F-5 | Ⓕ |
| RA6004 | D-1 | Ⓕ |
| RA6005 | D-1 | Ⓕ |
| RA6006 | F-5 | Ⓕ |
| RA6007 | E-3 | Ⓕ |
| RA6008 | F-4 | Ⓕ |
| RA6009 | D-7 | © |
| RA6010 | C-2 | Ⓕ |
| RA6011 | C-2 | Ⓕ |
| RA6012 | D-3 | Ⓕ |
| RA6013 | D-8 | © |
| RA6014 | D-7 | © |
| RA6015 | E-7 | © |
| RA6017 | C-3 | Ⓕ |

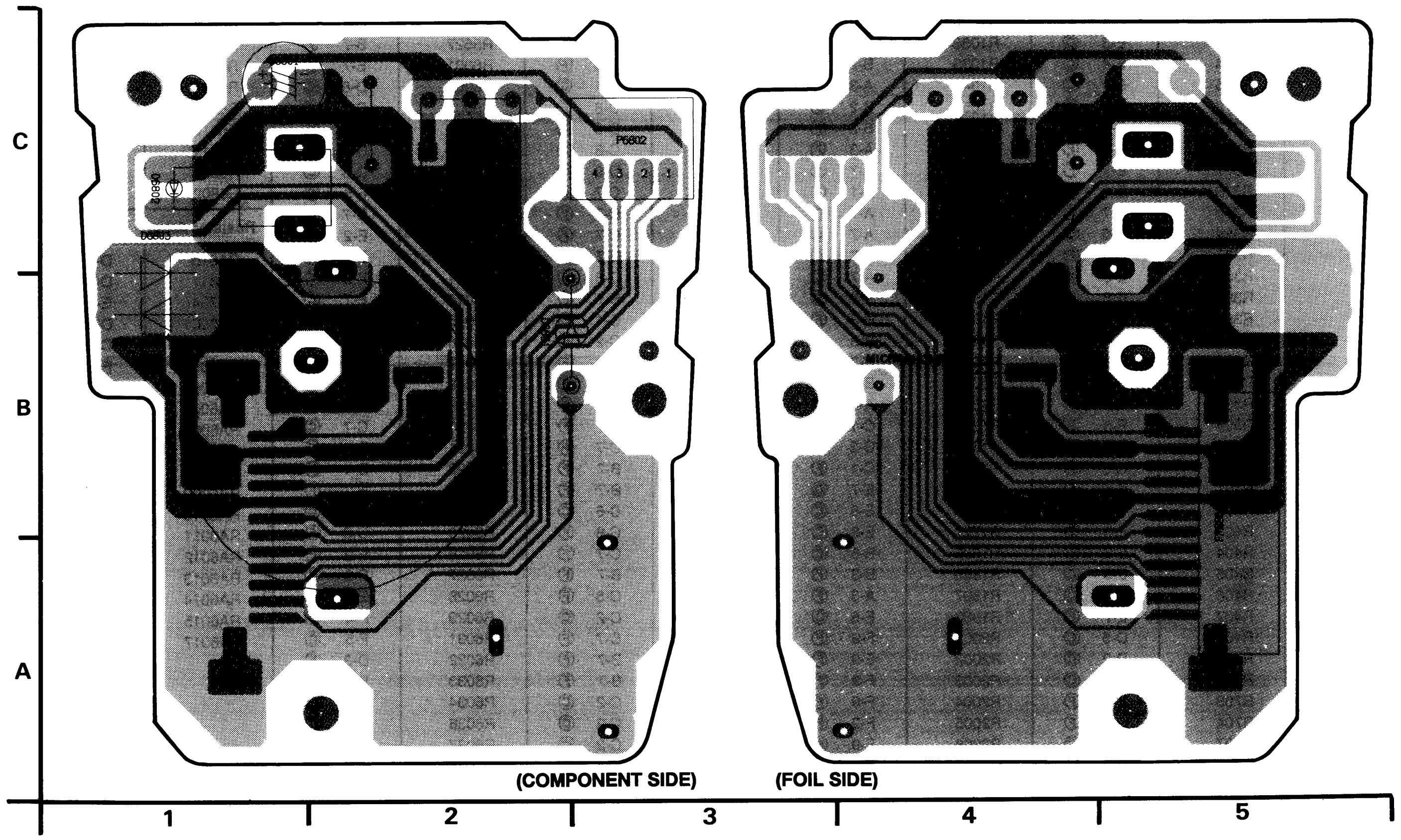
ADDRESS INFORMATION ©...COMPONENT SIDE Ⓕ...FOIL SIDE

## 3-16. MIC UNIT/MF RING UNIT SCHEMATIC DIAGRAM


AUDIO MAIN SIGNAL PATH IN REC MODE
E
D
C
B
A
1
2
3
4
5
MICROPHONE
+
JA
JB
C6801
6V47
D6803
MA165
D6804
MA165
IC6801
RPM6937-V4
(IR RECEIVER)
TO AUDIO/LUMI. CHRO. /
Page:3-34
FP6801
12 ECM OUT FP4002-1
11 ECM GND FP4002-2
10 SYS REG 5V FP4002-3
9 IR OUT FP4002-4
8 SYS GND FP4002-5
7 REMOTE CTL FP4002-6
6 MF VR2 FP4002-7
5 MF LED CTL FP4002-8
4 MF VCC FP4002-9
3 MF VR1 FP4002-10
2 TALLY LED FP4002-11
1 — FP4002-12
WHITE BALLANCE SENSOR
D6802
PH310
W6801
VWJ0121
FLAT CARD
CABLE
TALLY
D6801 BR2202S
P6802
MF VR1 1
MF VCC 2
MF LED CTL 3
MF VR2 4
MIC UNIT (VEK8385)
PC710
SG-211S
PC711
SG-211S
MF VR1 1
MF VCC 2
MF LED CTL 3
MF VR2 4
MF RING UNIT (VXP1885)

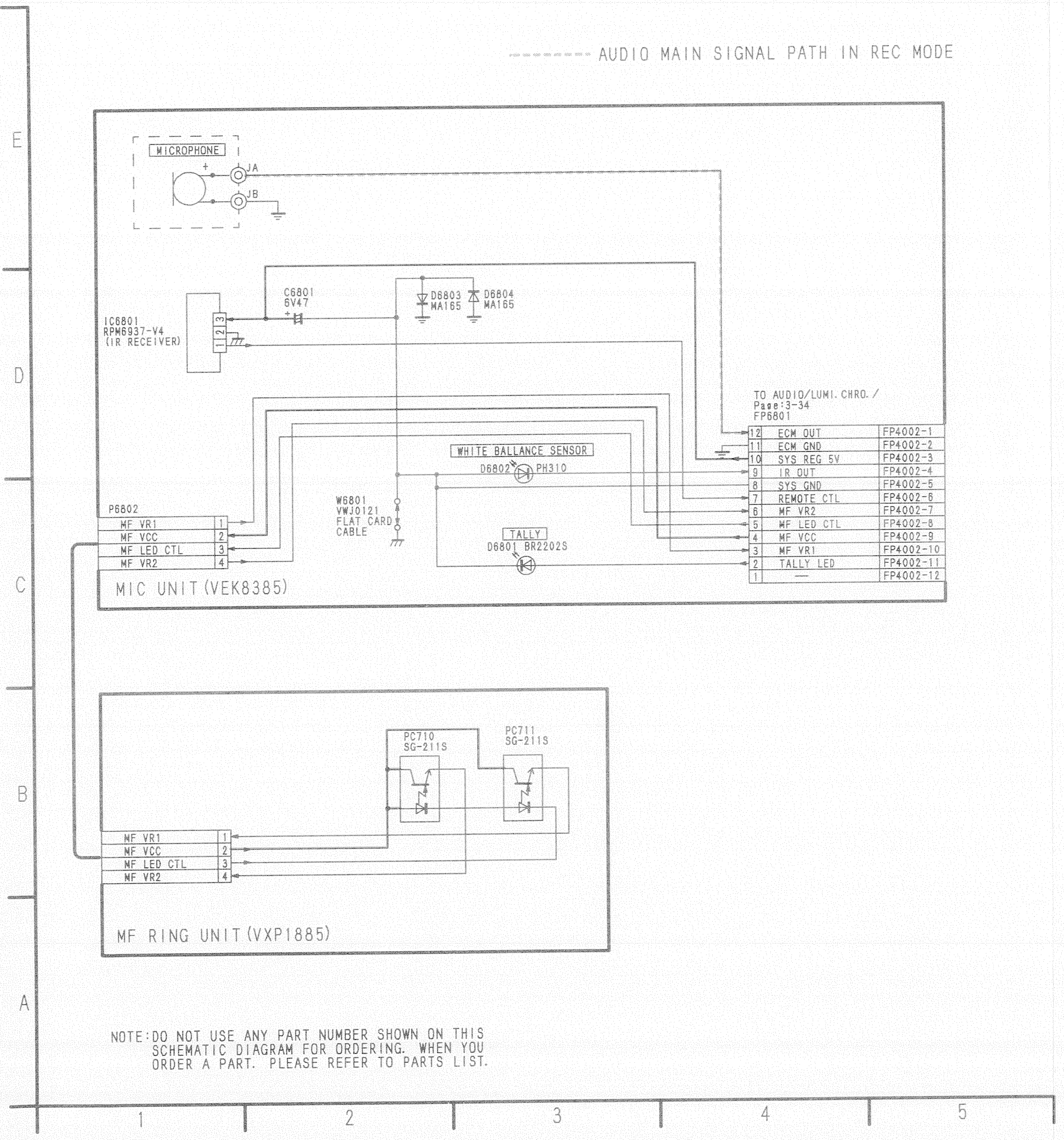
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART. PLEASE REFER TO PARTS LIST.

## 3-17. MIC UNIT (VEK8385)


C
B
A
P6802
(COMPONENT SIDE)
(FOIL SIDE)
1
2
3
4
5

Back Page:
ADDRESS INFORMATION Section

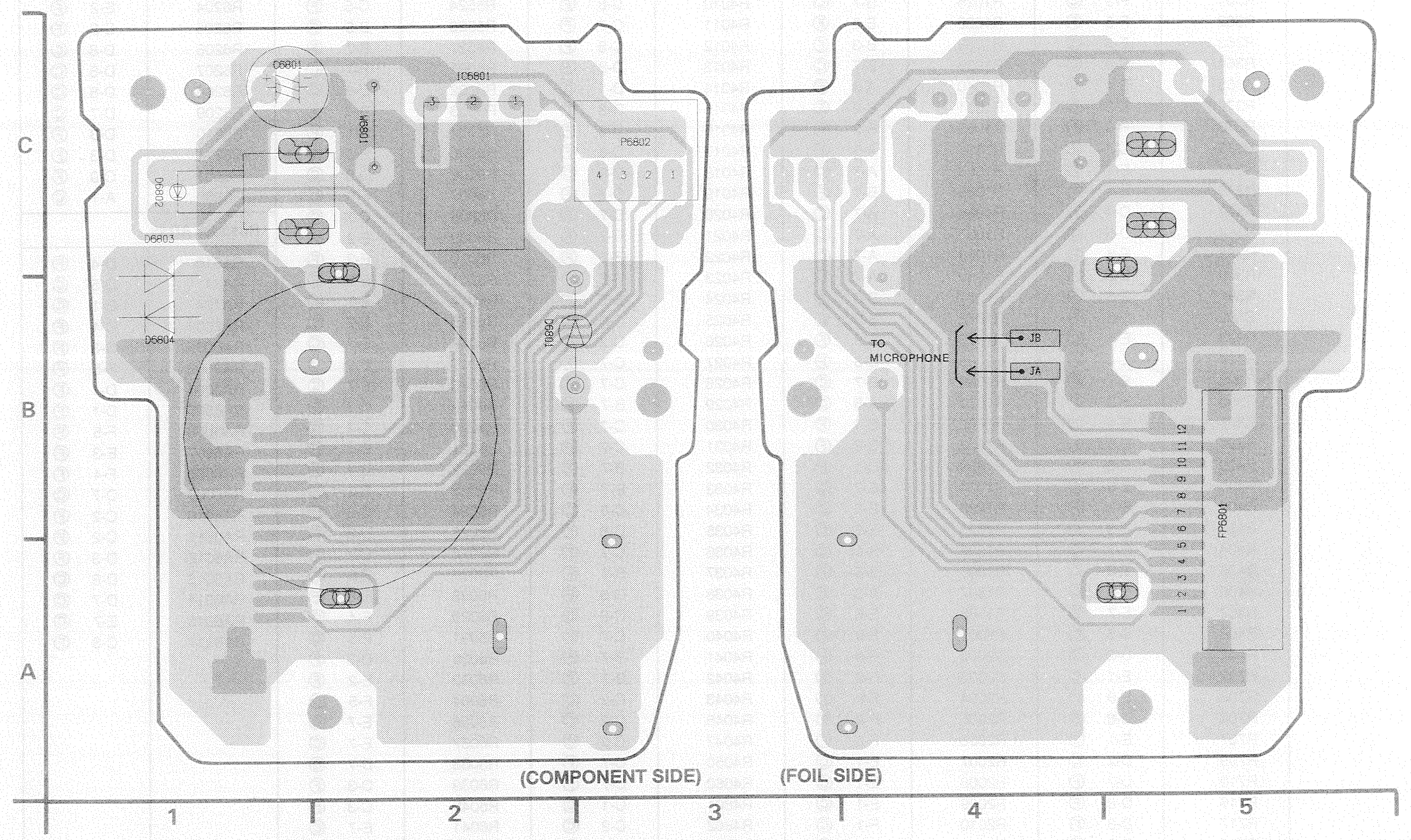
## 3-16. MIC UNIT/MF RING UNIT SCHEMATIC DIAGRAM


AUDIO MAIN SIGNAL PATH IN REC MODE
MICROPHONE
JA
JB
C6801
6V47
D6803
MA165
D6804
MA165
IC6801
RPM6937-V4
(IR RECEIVER)
TO AUDIO/LUMI. CHRO. /
Page:3-34
FP6801
12 ECM OUT FP4002-1
11 ECM GND FP4002-2
10 SYS REG 5V FP4002-3
9 IR OUT FP4002-4
8 SYS GND FP4002-5
7 REMOTE CTL FP4002-6
6 MF VR2 FP4002-7
5 MF LED CTL FP4002-8
4 MF VCC FP4002-9
3 MF VR1 FP4002-10
2 TALLY LED FP4002-11
1 — FP4002-12
WHITE BALLANCE SENSOR
D6802 PH310
W6801
VWJ0121
FLAT CARD
CABLE
TALLY
D6801 BR2202S
P6802
MF VR1 1
MF VCC 2
MF LED CTL 3
MF VR2 4
MIC UNIT (VEK8385)
PC710
SG-211S
PC711
SG-211S
MF VR1 1
MF VCC 2
MF LED CTL 3
MF VR2 4
MF RING UNIT (VXP1885)
E
D
C
B
A
1
2
3
4
5

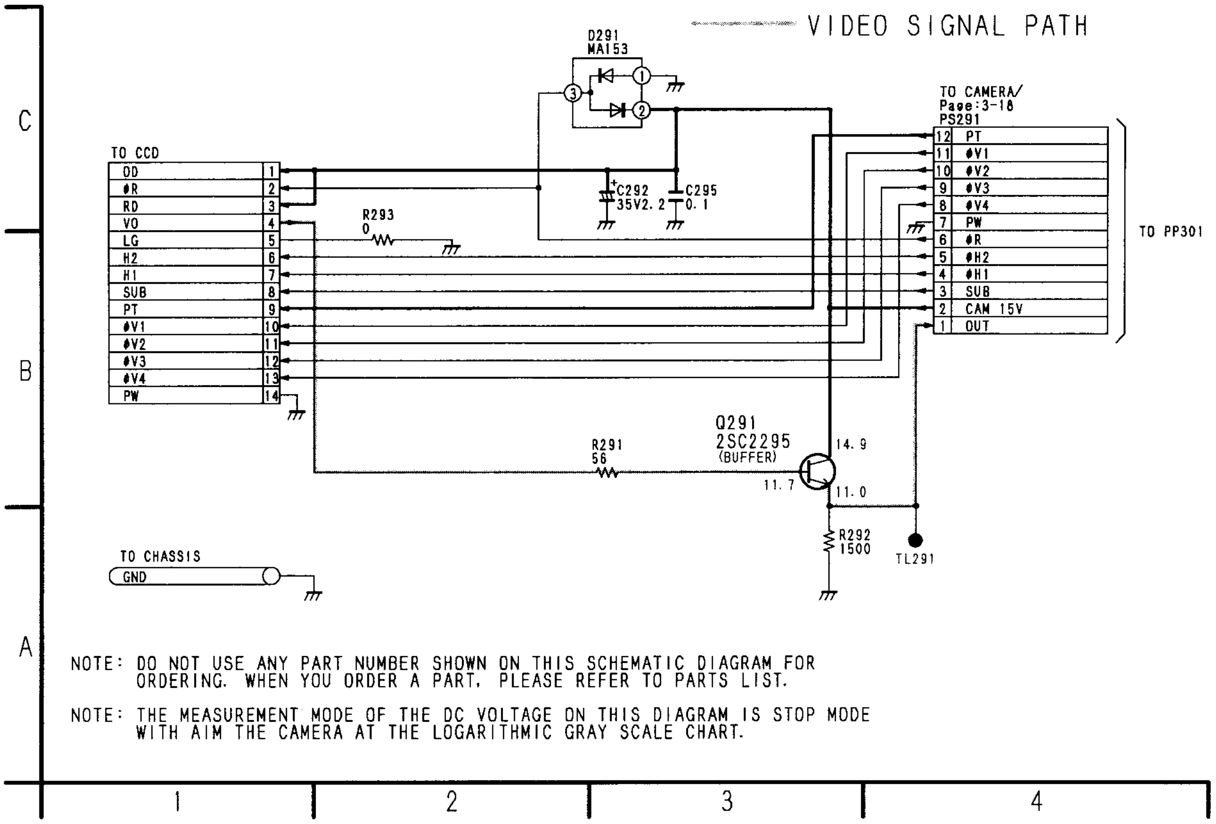
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART. PLEASE REFER TO PARTS LIST.

Back Page:
ADDRESS INFORMATION Section

## 3-17. MIC UNIT (VEK8385)


D6801
IC6801
W6801
P6802
4 3 2 1
D6802
D6803
D6804
D6801
TO MICROPHONE
JB
JA
FP6801
1 2 3 4 5 6 7 8 9 10 11 12
(COMPONENT SIDE)
(FOIL SIDE)
C
B
A
1
2
3
4
5

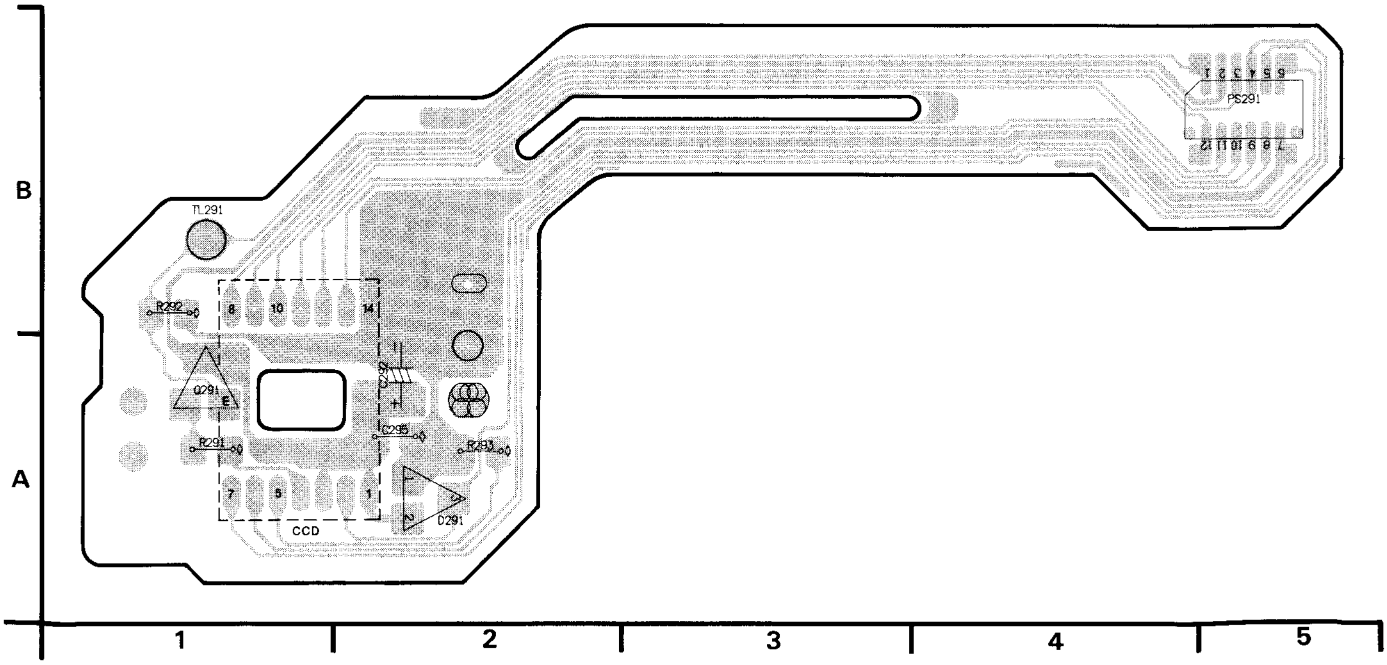
# 3-18. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM


VIDEO SIGNAL PATH
D291
MA153
TO CAMERA/
Page:3-18
PS291
TO CCD
OD
ϕR
RD
VO
LG
H2
H1
SUB
PT
ϕV1
ϕV2
ϕV3
ϕV4
PW
C292
35V2.2
C295
0.1
R293
0
12 PT
11 ϕV1
10 ϕV2
9 ϕV3
8 ϕV4
7 PW
6 ϕR
5 ϕH2
4 ϕH1
3 SUB
2 CAM 15V
1 OUT
TO PP301
Q291
2SC2295
(BUFFER)
R291
56
14.9
11.7
11.0
R292
1500
TL291
TO CHASSIS
GND
C
B
A
1
2
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

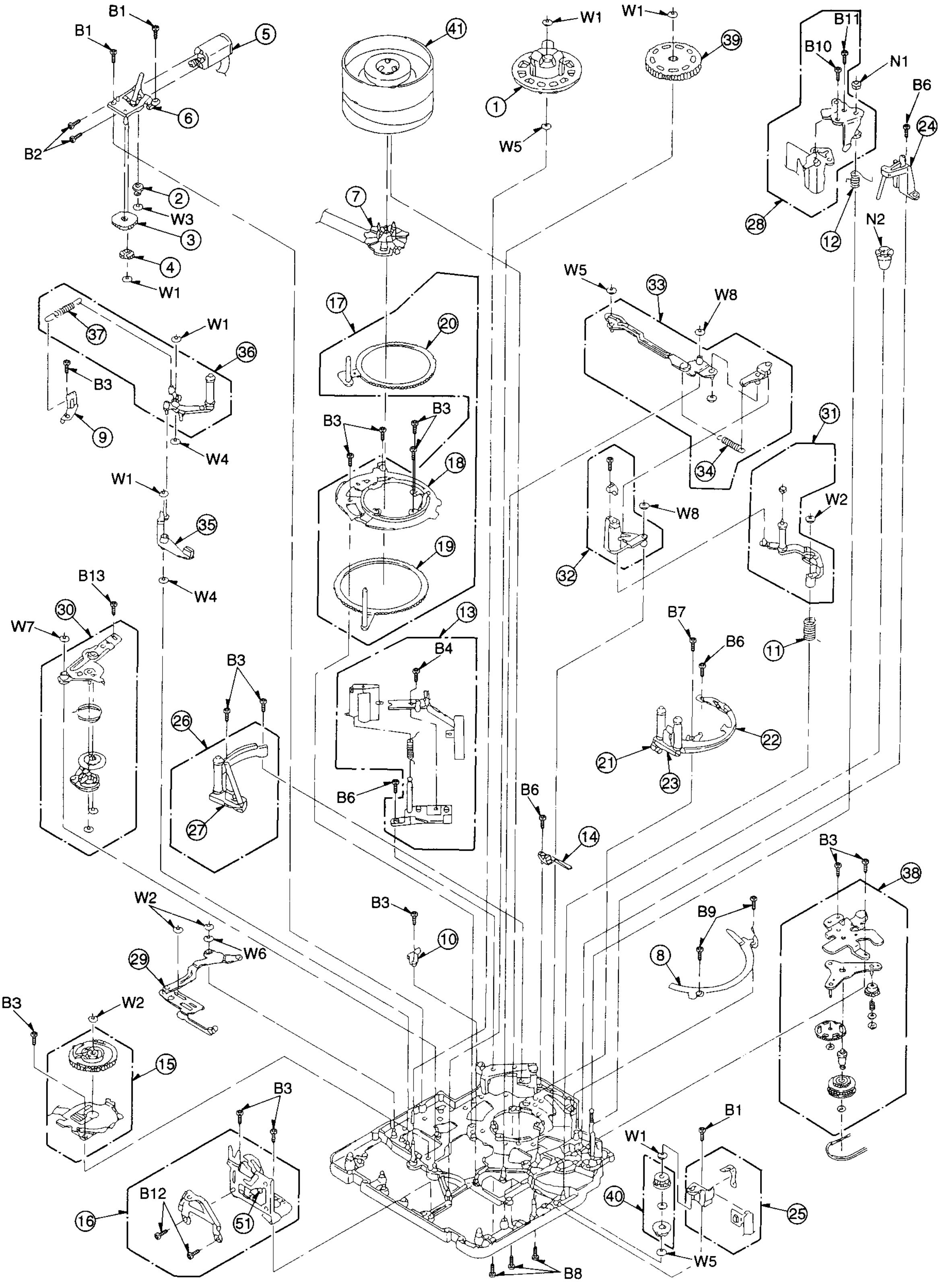
# 3-19. CCD FLEXIBLE CARD C.B.A. (VEP22276A)


PS291
TL291
R292
Q291
E
R291
8
10
14
7
5
1
CCD
C292
C295
R293
D291
B
A
1
2
3
4
5

# SECTION 4
# EXPLODED VIEWS & PARTS LIST

## 4-1. EXPLODED VIEWS & MECHANICAL REPLACEMENT PARTS LIST

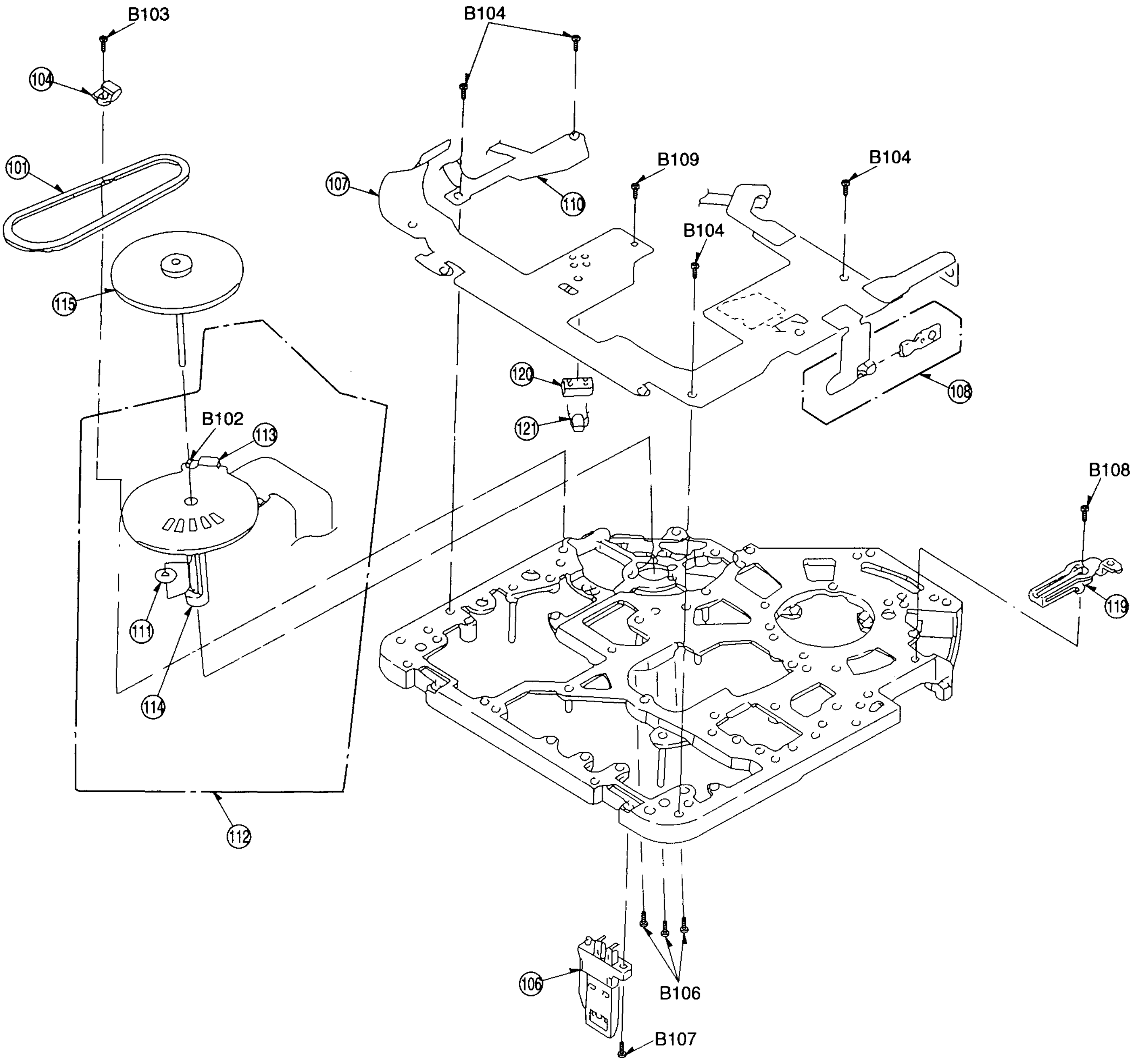
### ❶ VTR MECHANISM SECTION (1)


B1
B1
⑤
⑥
B2
②
W3
③
④
W1
(41)
⑦
W1
①
W5
W1
(39)
B11
B10
N1
B6
(24)
(28)
⑫
N2
(37)
W1
(36)
B3
⑨
W4
W1
(35)
W4
⑰
⑳
B3
B3
⑱
⑲
W5
(33)
W8
(34)
(32)
W8
(31)
W2
⑪
B13
(30)
W7
B3
(26)
(27)
⑬
B4
B6
B7
B6
(22)
(21)
(23)
B6
⑭
B3
(38)
W2
W6
(29)
B3
⑩
B9
⑧
B3
W2
⑮
B3
B12
⑯
(51)
B1
W1
(40)
(25)
W5
B8

Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| 1 (1) | VDR0226 | REEL BASE (S) | 1 | |
| 2 (1) | VDG0821 | BRAKE GEAR (A) | 1 | |
| 3 (1) | VDG0823 | BRAKE GEAR (C) | 1 | |
| 4 (1) | VDG0822 | BRAKE GEAR (B) | 1 | |
| 5 (1) | VEM0417 | LOADING MOTOR (1) U. | 1 | |
| 6 (1) | VXA4527 | MOTOR HOLDER U. | 1 | |
| 7 (1) | VEK8368 | RT CONNECTOR U. | 1 | |
| 8 (1) | VMA8502 | T-RING SLIDER | 1 | |
| 9 (1) | VMA8505 | TEN-REG.SPRING HOOK | 1 | |
| 10 (1) | VMA8532 | PENDULUM ARM HOLDER | 1 | |
| 11 (1) | VMB2362 | T3 ARM SPRING | 1 | |
| 12 (1) | VMB2365 | AC HEAD SPRING | 1 | |
| 13 (1) | VXA5306 | S-GUIDE STAND U. | 1 | |
| 14 (1) | VMD1851 | T-BOAT GUIDE | 1 | |
| 15 (1) | VSR0096 | MODE SWITCH U. | 1 | |
| 16 (1) | VXA6118 | LOCK BASE U. | 1 | |
| 17 (1) | VXA4517 | LOADING RING U. | 1 | |
| 18 (1) | VMD1824 | RING GUIDE | 1 | |
| 19 (1) | VXA4518 | T-RING U. | 1 | |
| 20 (1) | VXA4519 | S-RING U. | 1 | |
| 21 (1) | VEK5549 | LED U. | 1 | |
| 22 (1) | VMD1828 | T-RAIL | 1 | |
| 23 (1) | VXA5260 | T-BOAT U. | 1 | |
| 24 (1) | VXA4528 | T4 POST U. | 1 | |
| 25 (1) | VXA6117 | T-REEL SENSOR U. | 1 | |
| 26 (1) | VXA5153 | S-RAIL U. | 1 | |
| 27 (1) | VXA5124 | S-BOAT U. | 1 | |
| 28 (1) | VXA5201 | AC HEAD U. | 1 | |
| 29 (1) | VXL2393 | EJECT LEVER (1) U. | 1 | |
| 30 (1) | VXL2401 | SWING ARM U. | 1 | |
| 31 (1) | VXL2431 | T3 ARM (A) U. | 1 | |
| 32 (1) | VXL2139 | PINCH ARM U. | 1 | |
| 33 (1) | VXL2140 | PINCH DRIVE ARM U. | 1 | |
| 34 (1) | VMB2363 | PINCH PRESSURE SPRING | 1 | |
| 35 (1) | VXL2144 | PAD ARM U. | 1 | |
| 36 (1) | VXL2145 | TEN-REG. ARM U. | 1 | |
| 37 (1) | VMB2364 | TEN-REG. SPRING | 1 | |
| 38 (1) | VXL2399 | IDLER U. | 1 | |
| 39 (1) | VXP1308 | RELAY GEAR U. | 1 | |
| 40 (1) | VXP1313 | T-DRIVE GEAR U. | 1 | |
| 41 (1) | VEG1174 | CYLINDER U. | 1 | NV-RX66EG |
| 41 (1) | VEG1175 | CYLINDER U. | 1 | NV-RX61B |
| 51 (1) | VMB2369 | LOCK SPRING | 1 | |
| B1 (1) | XQN14+B25FY | SCREW | 3 | |
| B2 (1) | XQN14+A14 | SCREW | 2 | |
| B3 (1) | XQN14+B2 | SCREW | 13 | |
| B4 (1) | XQN14+BJ35 | SCREW | 1 | |
| B6 (1) | XQN14+CF4 | SCREW | 4 | |
| B7 (1) | XQN14+C5 | SCREW | 1 | |
| B8 (1) | XQN14+C35R | SCREW | 3 | |
| B9 (1) | VHD0711 | SCREW | 2 | |
| B10 (1) | VHD0700 | SCREW | 1 | |
| B11 (1) | VHD0699 | SCREW | 1 | |
| B12 (1) | XQN14+C2 | SCREW | 2 | |
| B13 (1) | VHD0707 | SCREW | 1 | |
| N1 (1) | VHN0047 | NUT | 1 | |
| N2 (1) | VHN0175 | NUT | 1 | |
| W1 (1) | VMX2027 | WASHER | 6 | |
| W2 (1) | VMX2026 | WASHER | 4 | |
| W3 (1) | VMX2051 | WASHER | 1 | |
| W4 (1) | XWGV12Z3G | WASHER | 2 | |
| W5 (1) | XWGV12Y3G | WASHER | 3 | |
| W6 (1) | XWGV0007 | WASHER | 1 | |
| W7 (1) | VMX2366 | WASHER | 1 | |
| W8 (1) | VMX2359 | CUT WASHER | 2 | |

# ❷ VTR MECHANISM SECTION (2)

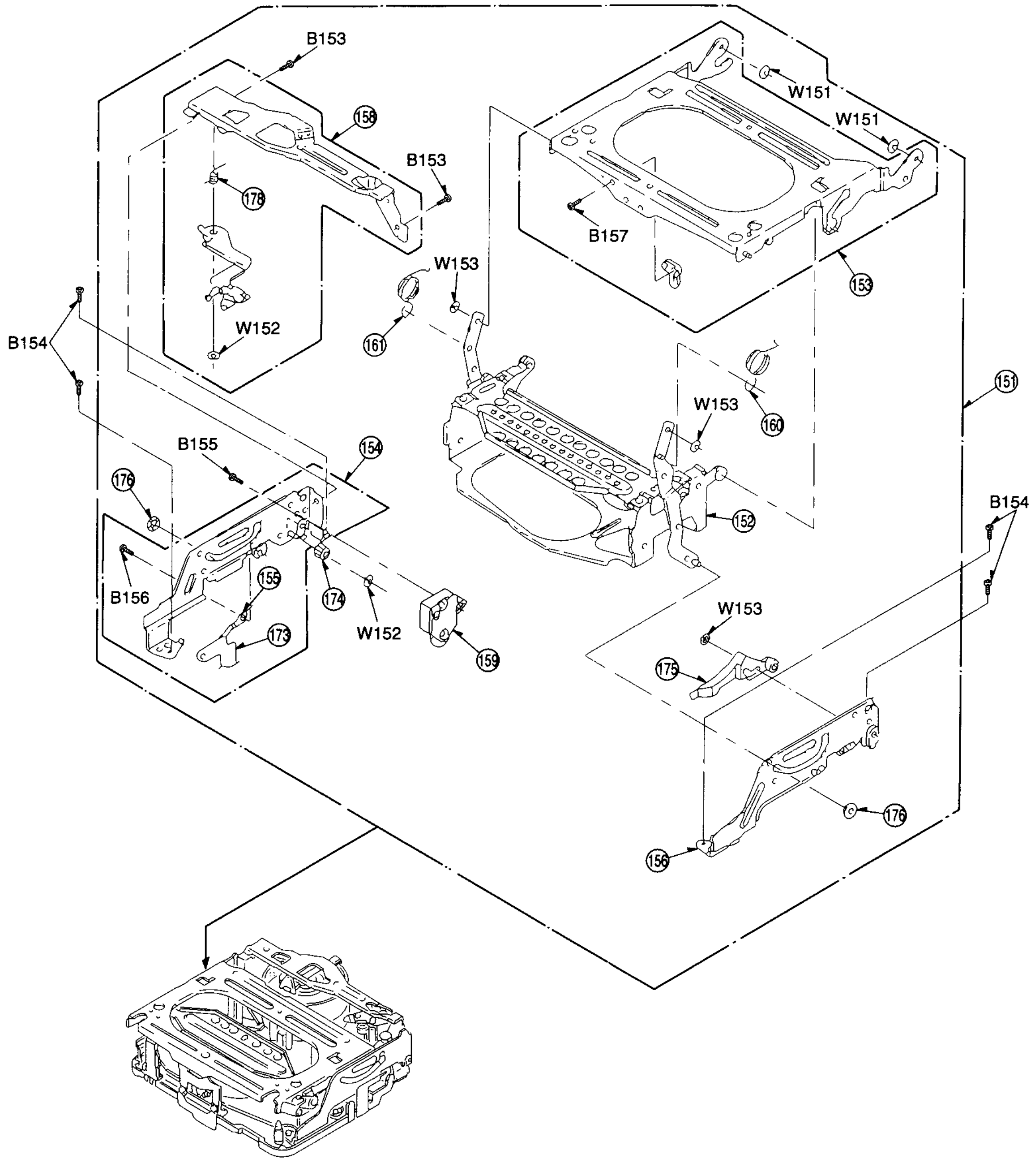


Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | | | |
| 101 (2) | VDV0232 | CAPSTAN BELT | 1 | |
| 104 (2) | VMD1846 | CAPSTAN STOPPER | 1 | |
| 106 (2) | VSH0065 | REC SAFETY SW U. | 1 | |
| 107 (2) | VWJ0878 | MECH.FLEXIBLE CARD | 1 | |
| 108 (2) | VXA4511 | PHOTO (L) U. | 1 | |
| 110 (2) | VXA4997 | T-REEL SENSOR U. | 1 | |
| 111 (2) | VDB1129 | LOWER BEARING | 1 | |
| 112 (2) | VEK7314 | STATOR U. | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| 113 (2) | VBK0059 | MR HEAD | 1 | |
| 114 (2) | VXD0134 | HOUSING U. | 1 | |
| 115 (2) | VXP1303 | ROTOR U. | 1 | |
| 119 (2) | VMP4923 | H.A. EARTH PLATE | 1 | |
| 120 (2) | VMD1842 | REEL SENSOR MOUNT | 1 | |
| 121 (2) | 0N2170-LM | REEL SENSOR | 1 | |
| | | | | |
| B102 (2) | VHD0593 | SCREW | 1 | |
| B103 (2) | XQN14+B25FY | SCREW | 1 | |
| B104 (2) | XQN14+C2R | SCREW | 4 | |
| B106 (2) | XQN14+A3 | SCREW | 3 | |
| B107 (2) | XQN14+CF4 | SCREW | 1 | |
| B108 (2) | XQN14+C2 | SCREW | 1 | |
| B109 (2) | VHD0875 | SCREW | 1 | |

## ❸ VTR MECHANISM SECTION (3)

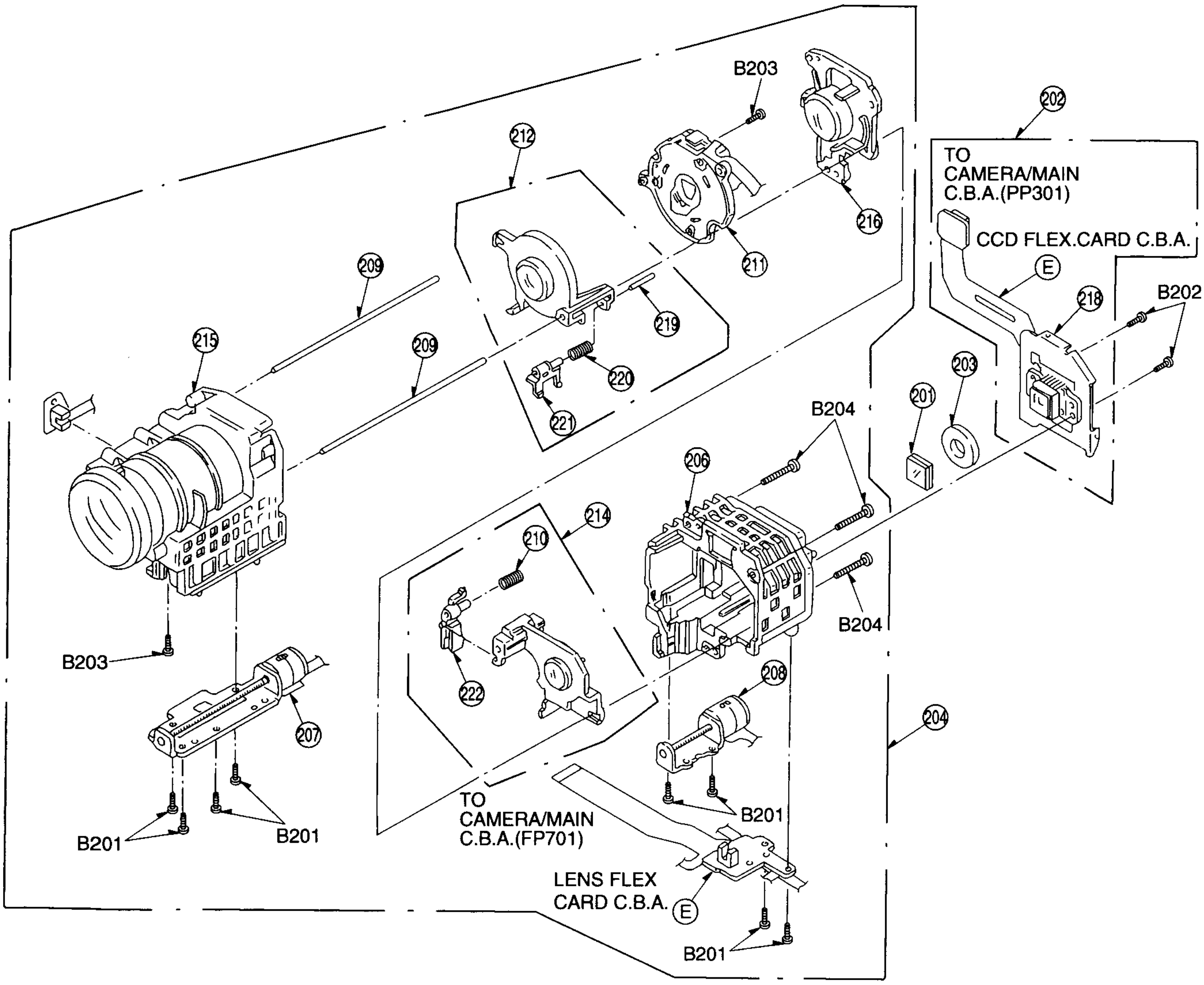

B153
(158)
B153
(178)
W153
W151
W151
B157
(153)
W152
(161)
B154
(151)
W153
(160)
B155
(154)
(176)
(152)
B154
B156
(155)
(174)
(173)
W152
(159)
W153
(175)
(176)
(156)

Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | | | |
| 151 (3) | VXA5725 | GARAGE U. | 1 | |
| 152 (3) | VXA5199 | HOLDER U. | 1 | |
| 153 (3) | VXA4863 | GARAGE (1) U. | 1 | |
| 154 (3) | VXA4510 | STAND (L) U. | 1 | |
| 155 (3) | VXA4511 | PHOTO (L) U. | 1 | |
| 156 (3) | VXA5000 | STAND (R) U. | 1 | |
| 158 (3) | VXL2222 | TAPE GUIDE U. | 1 | |
| 159 (3) | VXP1472 | DUMPER | 1 | |
| 160 (3) | VMB2367 | UP SPRING (R) | 1 | |
| 161 (3) | VMB2368 | UP SPRING (L) | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| 173 (3) | VWJ0548 | PHOTO FLEX.CARD | 1 | |
| 174 (3) | VDG0827 | DUMPER RELAY GEAR | 1 | |
| 175 (3) | VML2580 | TAPE OPEN LEVER | 1 | |
| 176 (3) | VDP1406 | ARM HOLDER | 2 | |
| 178 (3) | VMB2498 | TAPE GUIDE SPRING | 1 | |
| | | | | |
| B153 (3) | XQN14+BF2 | SCREW | 2 | |
| B154 (3) | VHD0838 | SCREW | 4 | |
| B155 (3) | XQN16+AJ8 | SCREW | 1 | |
| B156 (3) | XQN14+CM2 | SCREW | 1 | |
| B157 (3) | XQS14+A25FZ | SCREW | 1 | |
| | | | | |
| W151 (3) | VMX1042 | WASHER | 2 | |
| W152 (3) | VMX1061 | WASHER | 2 | |
| W153 (3) | XWGV0006 | WASHER | 3 | |
| | | | | |

## ④ CAMERA LENS SECTION

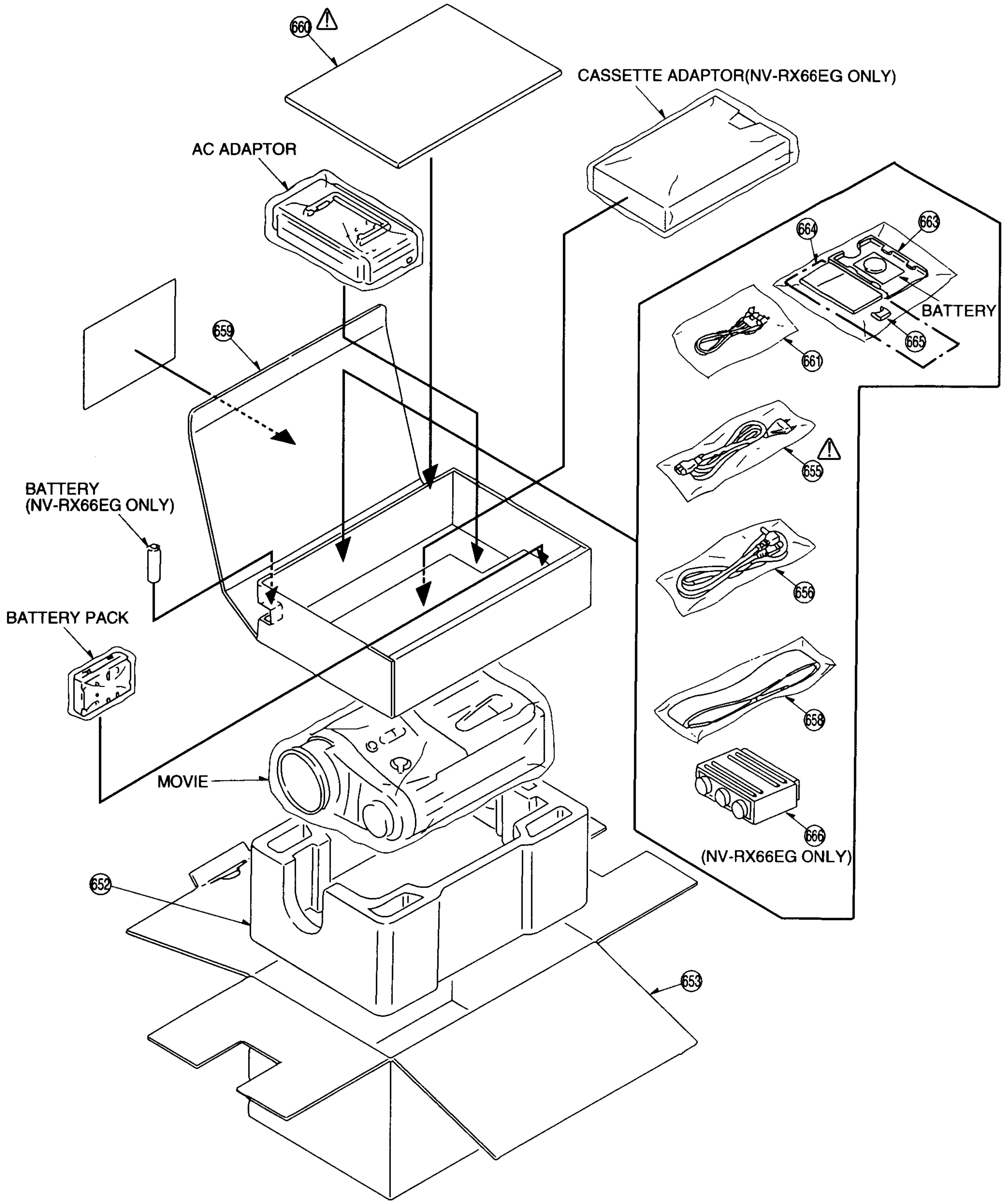

B203
202
TO
CAMERA/MAIN
C.B.A.(PP301)
212
216
CCD FLEX.CARD C.B.A.
E
211
209
218
B202
219
215
209
203
220
201
B204
221
206
214
210
B204
B203
208
222
207
204
B201
TO
CAMERA/MAIN
C.B.A.(FP701)
B201
B201
LENS FLEX
CARD C.B.A.
E
B201

Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | | | |
| 201 (4) | VDL0823 | CRYSTAL FILTER | 1 | |
| 202 (4) | VEK8383 | CCD UNIT | 1 | |
| 203 (4) | VMX2712 | CCD CUSHION | 1 | |
| 204 (4) | VXW0385 | LENS U. | 1 | |
| 206 (4) | VDW0528 | MASTER FLANGE | 1 | |
| 207 (4) | VEM0642 | ZOOM MOTOR U. | 1 | |
| 208 (4) | VEM0643 | FOCUS MOTOR U. | 1 | |
| 209 (4) | VMS6260 | GUIDE POLE | 2 | |
| 210 (4) | VMB2796 | 4TH. SPRING | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| 211 (4) | VXL2782 | IRIS U. | 1 | |
| 212 (4) | VXP1848 | 2ND. MOVING FRAME U. | 1 | |
| 214 (4) | VXP1849 | 4TH. MOVING FRAME U. | 1 | |
| 215 (4) | VXQ0689 | MAIN FRAME U. | 1 | |
| 216 (4) | VXQ0690 | 3RD. LENS FRAME U. | 1 | |
| 218 (4) | VSC4696 | CCD SHIELD CASE | 1 | |
| 219 (4) | VMS6269 | RACK G. P | 1 | |
| 220 (4) | VMB3193 | 2ND. SPRING | 1 | |
| 221 (4) | VML3300 | 2ND. RACK | 1 | |
| 222 (4) | VML3301 | 4TH. RACK | 1 | |
| | | | | |
| B201 (4) | XQN16+CJ5 | SCREW | 8 | |
| B202 (4) | XQN16+CJ6 | SCREW | 2 | |
| B203 (4) | VHD0852 | SCREW | 2 | |
| B204 (4) | XQN16+CJ8 | SCREW | 3 | |

## ❻ PACKING PARTS & ACCESSORIES SECTION


660 ⚠
CASSETTE ADAPTOR(NV-RX66EG ONLY)
AC ADAPTOR
664
663
BATTERY
665
661
659
655 ⚠
BATTERY
(NV-RX66EG ONLY)
656
BATTERY PACK
658
MOVIE
666
(NV-RX66EG ONLY)
652
653

Note: 1. * Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| 652 (6) | VPN4801 | CUSHION (LOWER) | 1 | |
| 653 (6) | VPG9401 | PACKING | 1 | NV-RX66EG |
| 653 (6) | VPG9402 | PACKING | 1 | NV-RX61B |
| ⚠ 655 (6) | VJA0998 | AC CORD | 1 | NV-RX66EG |
| ⚠ 655 (6) | VJA0940 | AC CORD | 1 | NV-RX61B |
| 656 (6) | VJA0769 | DC OUTPUT CABLE | 1 | |
| 658 (6) | VFC2522 | SHOULDER STRAP | 1 | |
| 659 (6) | VPN4805 | ACCESSORIES BOX | 1 | |
| ⚠ 660 (6) | VQT7421 | OPERATING INSTRUCTIONS (ENGLISH) | 1 | NV-RX61B |
| ⚠ 660 (6) | VQT7422 | OPERATING INSTRUCTIONS (GERMAN/ENGLISH /FRENCH/SPANISH) | 1 | NV-RX66EG |
| ⚠ 660 (6) | VQT7423 | OPERATING INSTRUCTIONS (ITALIAN/DUTCH /SWEDISH/DANISH) | 1 | NV-RX66EG |
| 661 (6) | VFA0039 | AV CORD | 1 | |
| 663 (6) | VGQ6893 | REMOTE CONTROLLER HOLD | 1 | |
| 664 (6) | VEQ1697 | REMOTE CONTROLLER | 1 | |
| 665 (6) | VJF1262 | BATTERY COVER | 1 | |
| 666 (6) | VFA0152 | 21-PIN ADAPTOR | 1 | NV-RX66EG |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | ****** JIG & TOOLS ****** | | |
| | | ------ ELECTRICAL ------- | | |
| | | Tatsujin Kit<br>(For individual part numbers of Tatsujin Kit, please refer to Technical Information Order No. VRD9609T08) | | |
| | VFKW0F0033 | ATTACHMENT CABLE | 2 | OR VFK0670 |
| | VFKW0F0055 | ATTACHMENT CABLE | 2 | |
| | VFKW0F0001 | COMMON CABLE | 2 | |
| | VFKW0F0128 | ATTACHMENT CABLE | 1 | OR VFK0978 |
| | VFKW0F0127 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0001 | COMMON CABLE | 1 | |
| | VFKW0F0118 | ATTACHMENT CABLE | 1 | OR VFK0929 |
| | VFKW0F0117 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0001 | COMMON CABLE | 1 | |
| | VFKW0F0132 | ATTACHMENT CABLE | 1 | OR VFK0980 |
| | VFKW0F0131 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0001 | COMMON CABLE | 1 | |
| | VFKW0F0111 | ATTACHMENT CABLE | 1 | OR VFK013 |
| | VFKW0F0112 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0001 | COMMON CABLE | 1 | |
| | VFKW0F0140 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0139 | ATTACHMENT CABLE | 1 | |
| | VFKW0F0001 | COMMON CABLE | 1 | |
| | VFK0668 | EXTENSION CABLE | 1 | |
| | | ------ MECHANICAL ------ | | |
| | VFK0743 | H-POSITION ADJUSTMENT | 1 | |
| | VFK0824 | ASTERISK TYPE WRENCH | 1 | |
| | VFM8180HUPF | VHS-C ALIGNMENT TAPE | 1 | |
| | VFK0329 | POST ADJ. SCREW DRIVER | 1 | |
| | VFK0326 | HEX WRENCH SET | 1 | |
| | VFK27 | HEAD CLEANING STICK | 1 | |
| | VFK1024 | MORLYTONE GREASE | 1 | |

# 4-2. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE : Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified,
All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS(uf), P=uuF.
4. The P.C. Board units marked width " ■ " show below the main assembled parts.
5. The marking (RTL) indicaters the retention time is limited for this item.
After the discontinuation of this assembly in production, it will no longer be available.

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | | | |
| ■ | VEP23461A | CAMERA/MAIN C.B.A. | 1 | (RTL) |
| | | | | |
| | | | | |
| ■ | VEP28253A | E.V.F. C.B.A. | 1 | (RTL) |
| | | | | |
| | | | | |
| ■ | VEP22276A | CCD FLEX. CARD C.B.A. | 1 | (RTL) |
| | | | | |
| | | | | |
| ■ | VEK8231 | LENS FLEX. CARD C.B.A. | 1 | (RTL) |
| | | | | |
| | | | | |
| ■ | VEK8385 | MIC UNIT | 1 | (RTL) |
| | | | | |
| | | | | |
| | | | | |
| ■ | VEP23461A | CAMERA/MAIN C.B.A. | | (RTL) |
| | | | | |
| C301 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C302 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C304,05 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 2 | |
| C307 | ECUM1A225KBM | C.CAPACITOR CH 10V 2.2U | 1 | |
| C308 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C309 | ECUX1H470JCV | C.CAPACITOR CH 50V 47P | 1 | |
| C310 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C311 | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 1 | |
| C312 | ECUX1H180JCV | C.CAPACITOR CH 50V 18P | 1 | |
| C315 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C316 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C318 | ECST1AY225Z | T.CAPACITOR CH 10V 2.2U | 1 | |
| C319 | ECUM1C224KBN | C.CAPACITOR CH 16V 0.22U | 1 | |
| C320 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C322-24 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 3 | |
| C325 | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C326 | ECUX1A105ZFV | C.CAPACITOR CH 10V 1U | 1 | |
| C327 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C328-32 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 5 | |
| C334 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C335,36 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C337 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C338 | ECUX1H330JCV | C.CAPACITOR CH 50V 33P | 1 | |
| C339 | ECUX1H180JCV | C.CAPACITOR CH 50V 18P | 1 | |
| C340-44 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 5 | |
| C345 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C346 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C348,49 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 2 | |
| C350 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C351 | ECEV1AA101U | E.CAPACITOR CH 10V 100U | 1 | |
| C352 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C353 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C355,56 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C357 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C358,59 | ECUM1C224KBN | C.CAPACITOR CH 16V 0.22U | 2 | |
| C360 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C361 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C362 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C364 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C365 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C366,67 | ECUX1E223KBV | C.CAPACITOR CH 25V 0.022U | 2 | |
| C368,69 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C370 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C371 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C372 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C374 | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C375 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C376 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C377 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C379 | ECST1GX155Z | T.CAPACITOR CH 4V 2.2U | 1 | |
| C380 | ECUV1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C381 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C382 | ECEV1AA101U | E.CAPACITOR CH 10V 100U | 1 | |
| C383 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C385 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C386 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C701 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C702 | ECUM1C224KBN | C.CAPACITOR CH 16V 0.22U | 1 | |
| C710 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C711 | ECEV1CA470P | E.CAPACITOR CH 16V 47U | 1 | |
| C713 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C714 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C715 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C716 | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C718 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C719 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C721 | ECUX1H222KBV | C.CAPACITOR CH 50V 2200P | 1 | |
| C724 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C727 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C1001 | ECUM1A225KBM | C.CAPACITOR CH 10V 2.2U | 1 | |
| C1003 | ECUM1A335KBM | C.CAPACITOR CH 10V 3.3U | 1 | |
| C1004 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C1005 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1008 | ECUM1A335KBM | C.CAPACITOR CH 10V 3.3U | 1 | |
| C1009 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C1010 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1012 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C1014 | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C1017 | ECUM1E105KBM | C.CAPACITOR CH 25V 1U | 1 | |
| C1019,20 | ECUM1E334KBM | C.CAPACITOR CH 25V 0.33U | 2 | |
| C1022 | ECUM1E104KBN | C.CAPACITOR CH 25V 0.1U | 1 | |
| C1024 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C1025 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C1026 | ECEV1CA100 | E.CAPACITOR CH 16V 10U | 1 | |
| C1027 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C1028 | ECEV1HAR47 | E.CAPACITOR CH 50V 0.47U | 1 | |
| C1030 | ECUX1H472KBV | C.CAPACITOR CH 50V 4700P | 1 | |
| C1032 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C1033-35 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 3 | |
| C1036 | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C1037 | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 1 | |
| C1041 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C1042 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C1046 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C1051 | ECUM1C334KBN | C.CAPACITOR CH 16V 0.33U | 1 | |
| C1055 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1057 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1064 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C1066 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1071 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1073 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C1080,81 | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 2 | |
| C1603 | ECEV1CA220P | E.CAPACITOR CH 16V 22U | 1 | |
| C1708 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C2001,02 | ECST1CY105Z | T.CAPACITOR CH 16V 1U | 2 | |
| C2003 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C2004 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C2005 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C2006 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C2007 | ECST1CY105Z | T.CAPACITOR CH 16V 1U | 1 | |
| C2008 | ECUM1E104KBN | C.CAPACITOR CH 25V 0.1U | 1 | |
| C2009,10 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C2011-13 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 3 | |
| C2014 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C2015-17 | ECUM1E104KBN | C.CAPACITOR CH 25V 0.1U | 3 | |
| C2018 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C2020-22 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 3 | |
| C2023 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C2025-27 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 3 | |
| C2028 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C2029 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C2031 | ECUM1E273KBV | C.CAPACITOR CH 25V 0.027U | 1 | |
| C2033 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C2040-42 | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 3 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| C2043 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C2070 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3001 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C3004 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3005 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C3006 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C3008 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3009 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3016 | ECUX1H151JCV | C.CAPACITOR CH 50V 150P | 1 | |
| C3017 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3018 | ECUX1H330JCV | C.CAPACITOR CH 50V 33P | 1 | |
| C3019,20 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C3022 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3023 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C3024 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3026 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3027 | ECEV1AAN100 | E.CAPACITOR CH 10V 10U | 1 | |
| C3028 | ECEV0GA471 | E.CAPACITOR CH 4V 470U | 1 | |
| C3029 | ECEV1CA100 | E.CAPACITOR CH 16V 10U | 1 | |
| C3030 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C3031 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C3035 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C4001 | ECYX1H821JCV | C.CAPACITOR CH 50V 820P | 1 | |
| C4002 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4003 | ECUX1H822KBV | C.CAPACITOR CH 50V 8200P | 1 | |
| C4004 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C4005 | ECUX1H562KBV | C.CAPACITOR CH 50V 5600P | 1 | |
| C4008 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C4009,10 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 2 | |
| C4011 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C4012 | ECST0JX226Z | T.CAPACITOR CH 6.3V 22U | 1 | |
| C4013 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4014 | ECUX1H153KBV | C.CAPACITOR CH 50V 0.015U | 1 | |
| C4015 | ECUX1H682KBV | C.CAPACITOR CH 50V 6800P | 1 | |
| C4016 | ECUM2A472JCM | C.CAPACITOR CH 100V 4700P | 1 | |
| C4017 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4018 | ECUX1H222KBV | C.CAPACITOR CH 50V 2200P | 1 | |
| C4019,20 | ECUX1C474KBN | C.CAPACITOR CH 16V 0.47U | 2 | |
| C4021,22 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C4023 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C4024 | ECST1CY475Z | T.CAPACITOR CH 16V 4.7U | 1 | |
| C4025 | ECST0JY685Z | T.CAAPCITOR CH 6.3V 6.8U | 1 | |
| C4026 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C4027 | ECST1AY225Z | T.CAPACITOR CH 10V 2.2U | 1 | |
| C4028 | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C4029 | ECUX1H122KBV | C.CAPACITOR CH 50V 1200P | 1 | |
| C4030 | ECUX1H151JCV | C.CAPACITOR CH 50V 150P | 1 | |
| C4031 | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C4032 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C4033 | ECUX1H562KBV | C.CAPACITOR CH 50V 5600P | 1 | |
| C4034 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4035 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C4036 | ECST0JY335Z | T.CAPACITOR CH 6.3V 3.3U | 1 | |
| C4037 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4038 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C4045 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C4801 | ECUX1C823KBV | C.CAPACITOR CH 16V 0.082U | 1 | |
| C4803 | ECUM1E273KBV | C.CAPACITOR CH 25V 0.027U | 1 | |
| C4804 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4805,06 | ECUM1E273KBV | C.CAPACITOR CH 25V 0.027U | 2 | |
| C4807 | ECST0JX226Z | T.CAPACITOR CH 6.3V 22U | 1 | |
| C4808 | ECUX1H122KBV | C.CAPACITOR CH 50V 1200P | 1 | |
| C4809 | ECUX1H152KBV | C.CAPACITOR CH 50V 1500P | 1 | |
| C4810 | ECUX1H472KBV | C.CAPACITOR CH 50V 4700P | 1 | |
| C4811 | ECUX1H182KBV | C.CAPACITOR CH 50V 1800P | 1 | |
| C4813 | ECST0JX226Z | T.CAPACITOR CH 6.3V 22U | 1 | |
| C4816 | ECST1CY105Z | T.CAPACITOR CH 16V 1U | 1 | |
| C4817 | ECUX1E223KBV | C.CAPACITOR CH 25V 0.022U | 1 | |
| C4818 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5001-04 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 4 | |
| C5005-08 | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 4 | |
| C5009,10 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5011 | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 1 | |
| C5012,13 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5014 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C5016 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C5017 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5018 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C5019 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C5020,21 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5022 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C5023 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5041 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C5501,02 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5504 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5505,06 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C5507 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C5508 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5509 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C5510 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C5511 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C5512 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C5513 | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 1 | |
| C5514 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C5515 | ECUX1H181JCV | C.CAPACITOR CH 50V 180P | 1 | |
| C5516 | ECUX1H390JCV | C.CAPACITOR CH 50V 39P | 1 | |
| C5517 | ECUX1C474KBN | C.CAPACITOR CH 16V 0.47U | 1 | |
| C5518 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5519 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C5520 | ECUX1C333KBV | C.CAPACITOR CH 16V 0.033U | 1 | |
| C5521 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5522 | ECUX1H090CCV | C.CAPACITOR CH 50V 9P | 1 | |
| C5523 | ECUX1H180JCV | C.CAPACITOR CH 50V 18P | 1 | |
| C5525 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5526 | ECUX1H040CCV | C.CAPACITOR CH 50V 4P | 1 | |
| C5527 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C5530 | ECUX1H331JCV | C.CAPACITOR CH 50V 330P | 1 | |
| C5531 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5534 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6001 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6002 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6003,04 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C6006,07 | ECUX1H150JCV | C.CAPACITOR CH 50V 15P | 2 | |
| C6008,09 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C6011 | ECUX1H682KBV | C.CAPACITOR CH 50V 6800P | 1 | |
| C6014 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6016 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C6018 | ECUX1H060DCV | C.CAPACITOR CH 50V 6P | 1 | |
| C6020,21 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C6022,23 | ECUX1H221JCV | C.CAPACITOR CH 50V 220P | 2 | |
| C6025 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6026 | ECEV1CA470P | E.CAPACITOR CH 16V 47U | 1 | |
| C6027 | ECEV05A470 | E.CAPACITOR CH 4V 47U | 1 | |
| C6029 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6030 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C6031 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6032 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6038 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6039 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C6048 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C6049,50 | ECEV1CA100 | E.CAPACITOR CH 16V 10U | 2 | |
| C6051 | ECUX1E223KBV | C.CAPACITOR CH 25V 0.022U | 1 | |
| C6060 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6100 | ECST0JY106Z | T.CAPACITOR CH 6.3V 10U | 1 | |
| C6201 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6202 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6203 | ECEV1CA100 | E.CAPACITOR CH 16V 10U | 1 | |
| C6204 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| C6205 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6206 | ECEV0GA101 | E.CAPACITOR CH 4V 100U | 1 | |
| C6207 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6208 | ECUX1C104KBV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6209 | ECEV0JA220 | E.CAPACITOR CH 6.3V 22U | 1 | |
| C6210 | ECUM1A105KBN | C.CAPACITOR CH 10V 1U | 1 | |
| D301 | 1SS355 | DIODE | 1 | |
| D303 | MA728 | DIODE | 1 | |
| D304 | 1SS355 | DIODE | 1 | |
| D1002 | EC20QS06 | DIODE | 1 | |
| D1006,07 | MA111 | DIODE | 2 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| D1009 | MA8180-M | DIODE | 1 | |
| D1015 | EC15QS04 | DIODE | 1 | |
| D1020 | MA111 | DIODE | 1 | |
| D1601 | MA8130M | DIODE | 1 | |
| D1603 | MA8130M | DIODE | 1 | |
| D1706 | MA111 | DIODE | 1 | |
| D3001 | MA133 | DIODE | 1 | |
| D3004 | 1SS355 | DIODE | 1 | |
| D6001 | MA111 | DIODE | 1 | |
| D6002 | MA728 | DIODE | 1 | |
| D6004 | MA133 | DIODE | 1 | |
| D6006 | MA728 | DIODE | 1 | |
| D6007 | MA111 | DIODE | 1 | |
| D6008 | MA8056 | DIODE | 1 | |
| D6009,10 | MA728 | DIODE | 2 | |
| D6011 | MA132WK | DIODE | 1 | |
| D6012,13 | MA132WA | DIODE | 2 | |
| D6014,15 | MA728 | DIODE | 2 | |
| D6016 | MA133 | DIODE | 1 | |
| D6018 | MA728 | DIODE | 1 | |
| D6022 | MA728 | DIODE | 1 | |
| D6201 | MA111 | DIODE | 1 | |
| | | | | |
| FP701 | VJS3319B018 | CONNECTOR (FEMALE) 18P | 1 | |
| FP2001 | VJS3911A007 | CONNECTOR (FEMALE) 7P | 1 | |
| FP2002 | VJS2959D018 | CONNECTOR (FEMALE) 18P | 1 | |
| FP4001 | VJS2958D009 | CONNECTOR (FEMALE) 9P | 1 | |
| FP4002 | VJS3654B012 | CONNECTOR (FEMALE) 12P | 1 | |
| FP5001 | VJS2959B013 | CONNECTOR (FEMALE) 13P | 1 | |
| FP6001 | VJS2959D018 | CONNECTOR (FEMALE) 18P | 1 | |
| FP6002 | VJS2959B006 | CONNECTOR (FEMALE) 6P | 1 | |
| FP6003 | VJS3319B010 | CONNECTOR (FEMALE) 10P | 1 | |
| FP6004 | VJS3654B008 | CONNECTOR (FEMALE) 8P | 1 | |
| FP6005 | VJS4036B008 | CONNECTOR (FEMALE) 8P | 1 | |
| FP6006 | VJS3320B026 | CONNECTOR (FEMALE) 26P | 1 | |
| | | | | |
| IC301 | F712513BPBW | IC | 1 | |
| IC302 | M62366GP | IC | 1 | |
| IC303 | XC62FP3302MR | IC | 1 | |
| IC304 | BU2990-01 | IC | 1 | |
| IC306 | TC7W04F | IC | 1 | |
| IC308 | Z4C2973 | IC | 1 | |
| IC309 | T91CU10F9914 | IC | 1 | |
| IC310 | AK6480AF | IC | 1 | |
| IC311 | TA75S393F | IC | 1 | |
| IC312 | TC7S14FU | IC | 1 | |
| IC313 | MN7E002B2S | IC | 1 | |
| IC314 | M52948FP | IC | 1 | |
| IC315 | MN31121SA | IC | 1 | |
| IC316 | XC62FP3002MR | IC | 1 | |
| IC317 | TC7S08FU | IC | 1 | |
| IC318 | TC7SH32FU | IC | 1 | |
| IC701,02 | TB6526F | IC | 2 | |
| IC706 | NJM2115VA | IC | 1 | |
| IC711 | TA75W01FU | IC | 1 | |
| IC1001 | BA9706K | IC | 1 | |
| IC2001 | TB6518F | IC | 1 | |
| IC2002,03 | UN224 | TRANSISTOR-RESISTOR | 2 | |
| IC3001 | HA118603F | IC | 1 | |
| IC5001 | AN3355FHP | IC | 1 | |
| IC5501 | MSM7470-73MS | IC | 1 | |
| IC6001 | MN675556BE | IC | 1 | |
| IC6002 | S3510AEFJ | IC | 1 | |
| IC6003 | TA75W393FU | IC | 1 | |
| IC6004 | RH5RE38AA | IC | 1 | |
| IC6005 | BA6289F | IC | 1 | |
| IC6006 | TA75W393FU | IC | 1 | |
| IC6007 | S2900AUP | IC | 1 | |
| IC6009 | S80833ANNP | IC | 1 | |
| IC6010 | BU4066BCFV | IC | 1 | |
| IC6011 | XC62AP3502PR | IC | 1 | |
| | | | | |
| L301 | VLQ0319K100 | COIL 10UH | 1 | |
| L302 | VLQ0426J220 | COIL 22UH | 1 | |
| L304 | VLQ0426J1R0 | COIL 1UH | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| L307 | VLQ0426J220 | COIL 22UH | 1 | |
| L316 | VLQ0426J5R6 | COIL 5.6UH | 1 | |
| L321 | VLQ0319K470 | COIL 47UH | 1 | |
| L322 | VLQ0426J330 | COIL 33UH | 1 | |
| L326 | VLQ0319K100 | COIL 10UH | 1 | |
| L703,04 | VLQ0319K100 | COIL 10UH | 2 | |
| L1001 | VLQ0833M4R7 | COIL 4.7UH | 1 | |
| L1002 | VLQ0833M220 | COIL 22UH | 1 | |
| L1003 | VLQ0834M4R7 | COIL 4.7UH | 1 | |
| L1004 | VLQ0319K100 | COIL 10UH | 1 | |
| L1007 | VLQ0833M101 | COIL 100UH | 1 | |
| L1008 | VLQ0834M4R7 | COIL 4.7UH | 1 | |
| L1010 | VLQ0319K100 | COIL 10UH | 1 | |
| L1011 | VLQ0319K101 | COIL 100UH | 1 | |
| L1014 | VLQ0319K100 | COIL 10UH | 1 | |
| L1062 | VLQ0833M330 | COIL 33UH | 1 | |
| L2001 | VLQ0319M1R0 | COIL 1UH | 1 | |
| L3002 | VLQ0319K100 | COIL 10UH | 1 | |
| L3003 | VLQ0163J820 | COIL 82UH | 1 | |
| L4005 | VLQ0319K101 | COIL 100UH | 1 | |
| L5001-04 | VLQ0319K470 | COIL 47UH | 4 | |
| L5501 | VLQ0319K100 | COIL 10UH | 1 | |
| L5502 | VLQ0163J100 | COIL 10UH | 1 | |
| L5503 | ELJFC120ZB | CHIP INDUCTOR | 1 | |
| L5504 | VLQ0163J390 | COIL 39UH | 1 | |
| L5506 | VLQ0319K470 | COIL 47UH | 1 | |
| L5507 | VLQ0163J121 | COIL 120UH | 1 | |
| | | | | |
| LB301-05 | VLP0175 | COIL | 5 | |
| LB306 | VLP0146 | COIL | 1 | |
| LB307 | VLP0175 | COIL | 1 | |
| LB308 | VLP0146 | COIL | 1 | |
| LB309,10 | VLP0153 | COIL | 2 | |
| LB311-13 | VLP0175 | COIL | 3 | |
| LB1601,02 | VLP0307 | COIL | 2 | |
| LB6001 | VLP0304 | COIL | 1 | |
| | | | | |
| P1001 | VJP3172D004 | CONNECTOR (MALE) 4P | 1 | |
| | | | | |
| PP301 | VJP3358C012 | CONNECTOR (MALE) 12P | 1 | |
| PP3001 | VJP3359D040 | CONNECTOR (MALE) 40P | 1 | |
| | | | | |
| PS1003 | VJS4005B004 | CONNECTOR (FEMALE) 4P | 1 | |
| PS3009 | VJS4005B004 | CONNECTOR (FEMALE) 4P | 1 | |
| | | | | |
| Q201 | XP4601 | TRANSISTOR-TRANSISTOR | 1 | |
| Q301 | XP4401 | TRANSISTOR | 1 | |
| Q302 | 2SD1030 | TRANSISTOR | 1 | |
| Q701-03 | IMT17T110 | TRANSISTOR | 3 | |
| Q704 | 2SD601A | TRANSISTOR | 1 | |
| Q706 | IMT17T110 | TRANSISTOR | 1 | |
| Q1001 | 2SA1731-R | TRANSISTOR | 1 | |
| Q1003 | MPL1 | TRANSISTOR | 1 | |
| Q1004 | 2SD2210 | TRANSISTOR | 1 | |
| Q1010 | 2SB1462-R | TRANSISTOR | 1 | |
| Q1062 | MPL1 | TRANSISTOR | 1 | |
| Q3001 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q3002 | XP4401 | TRANSISTOR | 1 | |
| Q3010 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4001 | XP6401 | TRANSISTOR | 1 | |
| Q4002 | 2SD602-R | TRANSISTOR | 1 | |
| Q4003 | 2SB1219 | TRANSISTOR | 1 | |
| Q4004 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4005 | 2SD2216 | TRANSISTOR | 1 | |
| Q4006 | 2SB1462-R | TRANSISTOR | 1 | |
| Q4007 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4009 | 2SD2216 | TRANSISTOR | 1 | |
| Q4014 | XP4601 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4801 | 2SD2216 | TRANSISTOR | 1 | |
| Q4802 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4804 | XP4501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q4805 | 2SD2216 | TRANSISTOR | 1 | |
| Q4806 | 2SB1462-R | TRANSISTOR | 1 | |
| Q4807 | 2SD2216 | TRANSISTOR | 1 | |
| Q5001,02 | XN4504 | TRANSISTOR | 2 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| Q5003 | 2SA812 | TRANSISTOR | 1 | |
| Q5501 | 2SD2216 | TRANSISTOR | 1 | |
| Q5502 | 2SB1462-R | TRANSISTOR | 1 | |
| Q5503 | 2SD2216 | TRANSISTOR | 1 | |
| Q6001,02 | 2SD2216 | TRANSISTOR | 2 | |
| Q6003 | 2SB970X | TRANSISTOR | 1 | |
| Q6004 | 2SD2216 | TRANSISTOR | 1 | |
| Q6005 | XP6501 | TRANSISTOR | 1 | |
| Q6201 | 2SB1462-R | TRANSISTOR | 1 | |
| | | | | |
| QR302 | MRN2111 | TRANSISTOR-RESISTOR | 1 | |
| QR303 | XP4115 | TRANSISTOR-RESISTOR | 1 | |
| QR304 | XP1213 | TRANSISTOR-RESISTOR | 1 | |
| QR305 | MRN1102 | TRANSISTOR-RESISTOR | 1 | |
| QR306 | XP1212 | TRANSISTOR-RESISTOR | 1 | |
| QR701 | MRN1102 | TRANSISTOR-RESISTOR | 1 | |
| QR1001 | MRN2102 | TRANSISTOR-RESISTOR | 1 | |
| QR1005 | UN9217 | TRANSISTOR-RESISTOR | 1 | |
| QR1061 | MRN2111 | TRANSISTOR-RESISTOR | 1 | |
| QR1881 | MRN1107 | TRANSISTOR-RESISTOR | 1 | |
| QR1882 | UN2130X | TRANSISTOR-RESISTOR | 1 | |
| QR2002 | MRN1111 | TRANSISTOR-RESISTOR | 1 | |
| QR3001 | MRN1104 | TRANSISTOR-RESISTOR | 1 | |
| QR4003 | MRN2103 | TRANSISTOR-RESISTOR | 1 | |
| QR4004 | XP1215 | TRANSISTOR-RESISTOR | 1 | |
| QR4005 | MRN1104 | TRANSISTOR-RESISTOR | 1 | |
| QR4008 | MRN1104 | TRANSISTOR-RESISTOR | 1 | |
| QR5502 | MRN1103 | TRANSISTOR-RESISTOR | 1 | |
| QR5504 | MRN1104 | TRANSISTOR-RESISTOR | 1 | |
| QR5505 | XP1213 | TRANSISTOR-RESISTOR | 1 | |
| QR6001 | MRN2104 | TRANSISTOR-RESISTOR | 1 | |
| QR6003 | MRN2103 | TRANSISTOR-RESISTOR | 1 | |
| QR6004 | XP4115 | TRANSISTOR-RESISTOR | 1 | |
| QR6005 | UN9216 | TRANSISTOR-RESISTOR | 1 | |
| QR6006 | MRN1104 | TRANSISTOR-RESISTOR | 1 | |
| QR6007 | MRN1102 | TRANSISTOR-RESISTOR | 1 | |
| QR6008 | UN9110 | TRANSISTOR-RESISTOR | 1 | |
| QR6010 | XP1213 | TRANSISTOR-RESISTOR | 1 | |
| QR6012 | MRN1103 | TRANSISTOR-RESISTOR | 1 | |
| QR6014 | UN9210 | TRANSISTOR-RESISTOR | 1 | |
| QR6015 | MRN1111 | TRANSISTOR-RESISTOR | 1 | |
| QR6050 | XP1213 | TRANSISTOR-RESISTOR | 1 | |
| QR6801 | MRN2111 | TRANSISTOR-RESISTOR | 1 | |
| | | | | |
| R303,04 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R305 | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R306 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R307 | ERJ3RBD513 | M.RESISTOR CH 1/16W 51K | 1 | |
| R308 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R309 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R310,11 | ERJ3GEYG152 | M.RESISTOR CH 1/16W 1.5K | 2 | |
| R312 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R313 | ERJ3GEYJ271 | M.RESISTOR CH 1/16W 270 | 1 | |
| R314 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R315 | ERJ3GEYG152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R316 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R317 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R321 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R322 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R323 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R324 | ERJ3GEYJ124 | M.RESISTOR CH 1/16W 120K | 1 | |
| R325 | ERJ3RBD683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R326 | ERJ3RBD223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R327 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R328 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R329 | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R330 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R331 | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R332 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R334 | ERJ3GEYG471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R335 | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R336 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R337,38 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R339 | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R340 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R341 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R342,43 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 2 | |
| R344 | ERJ3GEYJ335 | M.RESISTOR CH 1/16W 3.3M | 1 | |
| R345 | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R346 | ERJ3GEYG113 | M.RESISTOR CH 1/16W 11K | 1 | |
| R347 | ERJ3GEYG183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R348 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R349,50 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 2 | |
| R351 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R352 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R353 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R354 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R355 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R356 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R357 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R359 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R360 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R361 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R362 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R363 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R364,65 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R372 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R373 | ERJ3RBD682 | M.RESISTOR CH 1/16W 6.8K | 1 | |
| R376 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R377 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R378 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R379 | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R384 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R386 | ERJ3RBD122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R390 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R391 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R392 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R393 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R394 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R395 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R396 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R398,99 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 2 | |
| R400 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R401,02 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 2 | |
| R403-06 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 4 | |
| R407 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R408 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R701,02 | ERJ3GEYJ3R3 | M.RESISTOR CH 1/16W 3.3 | 2 | |
| R703,04 | ERJ3GEYJ2R2 | M.RESISTOR CH 1/16W 2.2 | 2 | |
| R707 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R709 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R710 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R716 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R717 | ERJ3GEYJ560 | M.RESISTOR CH 1/16W 56 | 1 | |
| R718 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R722 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R723 | ERJ3RBD221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R724 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R726 | ERJ3GEYG471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R727 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R728 | ERJ3GEYG682 | M.RESISTOR CH 1/16W 6.8K | 1 | |
| R729 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R730 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R731 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R732 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R733 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R734,35 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 2 | |
| R736,37 | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 2 | |
| R738 | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R740 | ERJ3GEYJ124 | M.RESISTOR CH 1/16W 120K | 1 | |
| R741,42 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| R743 | ERJ3RBD682 | M.RESISTOR CH 1/16W 6.8K | 1 | |
| R745 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R761 | ERJ3RBD222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R1001 | ERJ6RBD822 | M.RESISTOR CH 1/10W 8.2K | 1 | |
| R1002 | ERJ6RBD272 | M.RESISTOR CH 1/10W 2.7K | 1 | |
| R1005 | ERJ6RBD472 | M.RESISTOR CH 1/10W 4.7K | 1 | |
| R1006 | ERJ6RBD272 | M.RESISTOR CH 1/10W 2.7K | 1 | |
| R1007 | ERJ8GEYJ330 | M.RESISTOR CH 1/8W 33 | 1 | |
| R1008 | ERJ3RBD183 | M.RESISTOR CH 1/16W 18K | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R1009 | ERJ3RBD152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R1012 | ERJ6RHD1872 | M.RESISTOR CH 1/10W 18.7K | 1 | |
| R1013 | ERJ6RBD473 | M.RESISTOR CH 1/10W 47K | 1 | |
| R1014,15 | ERJ6RBB182 | M.RESISTOR CH 1/10W 1.8K | 2 | |
| R1016 | ERJ3RBD153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R1017 | ERJ6GEYG102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1018 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R1019 | ERJ6GEYG102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1020 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R1021 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 1 | |
| R1022 | ERJ3GEYJ150 | M.RESISTOR CH 1/16W 15 | 1 | |
| R1023 | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R1024 | ERJ3GEYJ470 | M.RESISTOR CH 1/16W 47 | 1 | |
| R1025 | ERJ6GEYG102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1035 | ERJ3GEYJ470 | M.RESISTOR CH 1/16W 47 | 1 | |
| R1038 | ERJ3RBD101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R1039 | ERJ3RBD561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R1040 | ERJ3RBD111 | M.RESISTOR CH 1/16W 110 | 1 | |
| R1051 | ERJ3RBD273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R1052 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R1057 | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R1063 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R1065 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R1066 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R1067 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R1068 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R1069 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R1071 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R1072 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R1073 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R1085,86 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| ⚠ R1601 | VSF0226D25T | FUSE | 1 | |
| R1602 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R1603 | ERJ3GEYJ564 | M.RESISTOR CH 1/16W 560K | 1 | |
| R1699 | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| R1724 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R1726 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R1727 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R1805-07 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 3 | |
| R1883 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R2001 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R2002 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R2003 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R2004 | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R2005 | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R2006 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R2007 | ERJ8GEYJR47 | M.RESISTOR CH 1/8W 0.47 | 1 | |
| R2008 | ERJ8GEYJR33 | M.RESISTOR CH 1/8W 0.33 | 1 | |
| R2009 | ERJ3RBD561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R2010 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R2011 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R2012 | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 1 | |
| R2015 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R2016 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R2017 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R2018 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R2019,20 | ERJ3GEYG471 | M.RESISTOR CH 1/16W 470 | 2 | |
| R2021 | ERJ6GEYG101 | M.RESISTOR CH 1/10W 100 | 1 | |
| R2022 | ERJ8GEYJR33 | M.RESISTOR CH 1/8W 0.33 | 1 | |
| R2024 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R2040-42 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 3 | |
| R3001 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R3004 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R3005 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R3006 | ERJ3RBD682 | M.RESISTOR CH 1/16W 6.8K | 1 | |
| R3007 | ERJ3RBD202 | M.RESISTOR CH 1/16W 2K | 1 | |
| R3009 | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R3010 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R3013 | ERJ3RBD103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R3015 | ERJ3RBD182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R3018 | ERJ3GEYJ225 | M.RESISTOR CH 1/16W 2.2M | 1 | |
| R3020 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R3022 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R3023 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R3025 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R3026 | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R3034 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R3057 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R3058 | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R3059 | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R3060 | ERJ3RED620 | M.RESISTOR CH 1/16W 62 | 1 | |
| R4001 | ERJ3GEYJ100 | M.RESISTOR CH 1/16W 10 | 1 | |
| R4002 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R4003 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R4004 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R4005 | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 1 | |
| R4006 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R4007 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4008 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R4009 | ERJ3GEYJ225 | M.RESISTOR CH 1/16W 2.2M | 1 | |
| R4010 | ERJ3GEYJ271 | M.RESISTOR CH 1/16W 270 | 1 | |
| R4011 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4012 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R4013 | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R4014 | ERJ3RBD153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R4015,16 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R4017 | ERJ3GEYJ2R2 | M.RESISTOR CH 1/16W 2.2 | 1 | |
| R4018 | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R4019 | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R4020 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R4021 | ERJ3RBD473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R4022 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R4023 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R4024 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R4025 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R4026 | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 1 | |
| R4027,28 | ERJ3RBD183 | M.RESISTOR CH 1/16W 18K | 2 | |
| R4029 | ERJ3RBD103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4030 | ERJ3RBD223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4031 | ERJ3RBD203 | M.RESISTOR CH 1/16W 20K | 1 | |
| R4032 | ERJ3RBD151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R4033 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R4034 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4035 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R4036 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R4037 | ERJ3RBD822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R4038 | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R4039 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4040 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R4041 | ERJ3GEYG822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R4042 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R4043 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4046 | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R4047 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R4050 | ERJ3RBD103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4060 | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R4801 | ERJ6GEYF561 | M.RESISTOR CH 1/10W 560 | 1 | |
| R4802 | ERJ6GEYG222 | M.RESISTOR CH 1/10W 2.2K | 1 | |
| R4803 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R4804 | ERJ3GEYG822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R4805 | ERJ6GEYJ224 | M.RESISTOR CH 1/10W 220K | 1 | |
| R4806 | ERJ3GEYG152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R4807 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R4808,09 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 2 | |
| R4811 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4814 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R4815 | ERJ3GEYJ121 | M.RESISTOR CH 1/16W 120 | 1 | |
| R4816 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R4818 | ERJ6GEYF124 | M.RESISTOR CH 1/10W 120K | 1 | |
| R4819 | ERJ3RBD561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R4820 | ERJ6GEYG184 | M.RESISTOR CH 1/10W 180K | 1 | |
| R4821 | ERJ3GEYG822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R4822 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R4824 | ERJ3GEYG822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R4826 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R4828,29 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R5001 | ERJ3GEYJ100 | M.RESISTOR CH 1/16W 10 | 1 | |
| R5002,03 | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 2 | |
| R5004 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R5005 | ERJ3GEYG113 | M.RESISTOR CH 1/16W 11K | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R5007 | ERJ3RBD561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R5008 | ERJ6GEYJ4R7 | M.RESISTOR CH 1/10W 4.7 | 1 | |
| R5010 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R5500 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5502 | ERJ3GEYG471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R5503 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R5504 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R5505 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R5508 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5510 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5513 | ERJ3GEYJ225 | M.RESISTOR CH 1/16W 2.2M | 1 | |
| R5514 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R5515 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5516 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R5517 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R5521 | ERJ3GEYG471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R5522 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R5523 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R5524 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R5526,27 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6001 | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R6002 | ERJ3GEYG152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R6003,04 | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 2 | |
| R6005 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6006,07 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6008 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R6009 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6010 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6011 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6014 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R6015 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6016 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R6017 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6018,19 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 2 | |
| R6020 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6021 | ERJ8GEYJ120 | M.RESISTOR CH 1/8W 12 | 1 | |
| R6022 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6023 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6024 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R6025 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6026 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6027 | ERJ6GEYG221 | M.RESISTOR CH 1/10W 220 | 1 | |
| R6028 | ERJ3RBD363 | M.RESISTOR CH 1/16W 36K | 1 | |
| R6029 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R6031 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6032 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6033 | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| R6034 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6036,37 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 2 | |
| R6038 | ERJ3GEYG332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R6039 | ERJ8GEYJ2R2 | M.RESISTOR CH 1/8W 2.2 | 1 | |
| R6040 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6041 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6042 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R6044 | ERJ3RBD273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R6045 | ERJ3RBD393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R6046,47 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6048 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6049 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6051 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R6052 | ERJ3GEYG822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R6053 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R6054 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6055 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6056 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6057 | ERJ3GEYG472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R6058 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6059 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6060 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R6065 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R6066 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6067 | ERJ3GEYJ124 | M.RESISTOR CH 1/16W 120K | 1 | |
| R6068 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R6069 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R6071 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6072 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6073 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6074 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6087 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6088 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6089 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6091 | ERJ3GEYJ121 | M.RESISTOR CH 1/16W 120 | 1 | |
| R6092 | ERJ3RBD393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R6093 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6095 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R6098 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6099 | ERJ3RBD393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R6106 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6115,16 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6144 | ERJ3GEYG102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6145 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R6154 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6202 | ERJ8GEYJ2R2 | M.RESISTOR CH 1/8W 2.2 | 1 | |
| R6203 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R6204 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6205 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6206-08 | ERJ3RBD104 | M.RESISTOR CH 1/16W 100K | 3 | |
| R6209 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6210 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R6211 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R6801 | ERJ8GEYJ330 | M.RESISTOR CH 1/8W 33 | 1 | |
| R6802 | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| | | | | |
| RA310,11 | EXBV8V472J | RESISTOR-RESISTOR | 2 | |
| RA704 | EXBV4V473J | RESISTOR-RESISTOR | 1 | |
| RA6001 | EXBV8V102J | RESISTOR-RESISTOR | 1 | |
| RA6002 | EXBV4V683J | RESISTOR-RESISTOR | 1 | |
| RA6003,04 | EXBV8V102J | RESISTOR-RESISTOR | 2 | |
| RA6005,06 | EXBV4V102J | RESISTOR-RESISTOR | 2 | |
| RA6007 | EXBV8V102J | RESISTOR-RESISTOR | 1 | |
| RA6008 | EXBV8V683J | RESISTOR-RESISTOR | 1 | |
| RA6009 | EXBV4V272J | RESISTOR-RESISTOR | 1 | |
| RA6010 | EXBV4V102J | RESISTOR-RESISTOR | 1 | |
| RA6011 | EXBV4V683J | RESISTOR-RESISTOR | 1 | |
| RA6012 | EXBV4V223J | RESISTOR-RESISTOR | 1 | |
| RA6013 | EXBV4V101J | RESISTOR-RESISTOR | 1 | |
| RA6014 | EXBV4V332J | RESISTOR-RESISTOR | 1 | |
| RA6015 | EXBV4V103J | RESISTOR-RESISTOR | 1 | |
| RA6017 | EXBV4V103J | RESISTOR-RESISTOR | 1 | |
| | | | | |
| T1001 | ELL04T077R | FIXED INDUCTORS | 1 | |
| T1002 | VTP0357 | TRANSFORMER | 1 | |
| T4001 | EIQ6QB008 | TRANSFORMER | 1 | |
| | | | | |
| X301 | VSX0926 | CRYSTAL OSCILLATOR | 1 | |
| X302 | VSX0947 | CERAMIC OSCILLATOR | 1 | |
| X5501 | VSX0933 | CRYSTAL OSCILLATOR | 1 | |
| X6001 | VSX0917 | CRYSTAL OSCILLATOR | 1 | |
| X6003 | VSX0601 | CRYSTAL OSCILLATOR | 1 | |
| | | | | |
| | | | | |
| ■ | VEP28253A-3A | E.V.F. C.B.A. | 1 | (RTL) |
| | | | | |
| C801 | ECQV1H104JL | P.CAPACITOR 50V 0.1U | 1 | |
| C802 | ECA1CKF470 | E.CAPACITOR 16V 47U | 1 | |
| C803,04 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 2 | |
| C805 | ECEA0JKE221 | E.CAPACITOR 6.3V 220U | 1 | |
| C806 | ECUM1H123KBN | C.CAPACITOR CH 50V 0.012U | 1 | |
| C807 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C809 | ECA1CKF470 | E.CAPACITOR 16V 47U | 1 | |
| C811 | VCEA1ACC101 | E.CAPACITOR 10V 100U | 1 | |
| C812 | ECUM1H180JCN | C.CAPACITOR CH 50V 18P | 1 | |
| C813 | ECUM2J221KBM | C.CAPACITOR CH 630V 220P | 1 | |
| C814 | VCEA1HCC010 | E.CAPACITOR 10V 100U | 1 | |
| C815 | ECUM2H331KBM | C.CAPACITOR CH 500V 330P | 1 | |
| C816 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C818 | ECUM1H390JCN | C.CAPACITOR CH 50V 39P | 1 | |
| C831,32 | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 2 | |
| C833 | ECUM2A472JUM | C.CAPACITOR CH 100V 4700P | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| D803 | MA142WA | DIODE | 1 | |
| D804 | MA143A | DIODE | 1 | |
| | | | | |
| IC801 | AN2516S | IC | 1 | |
| | | | | |
| L801 | VLQ0319K220 | COIL 22UH | 1 | |
| L802 | ELH5L246 | COIL | 1 | |
| L804 | VLQ0426J680 | COIL 68UH | 1 | |
| L806 | VLQ0426J330 | COIL 33UH | 1 | |
| | | | | |
| P801 | VJP1597T | CONNECTOR (MALE) 4P | 1 | |
| P802 | VJP3318A004 | CONNECTOR (MALE) 4P | 1 | |
| P803 | VJP1596T | CONNECTOR (MALE) 3P | 1 | |
| P804 | VJP1229T | CONNECTOR (MALE) 2P | 1 | |
| | | | | |
| Q802 | 2SD968A-S | TRANSISTOR | 1 | |
| Q803,04 | 2SB1218A | TRANSISTOR | 2 | |
| | | | | |
| R801 | ERJ6ENF4422 | M.RESISTOR CH 1/10W 44.2K | 1 | |
| R802 | ERJ6GEYJ3R9 | M.RESISTOR CH 1/10W 3.9 | 1 | |
| R804 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R806 | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R807 | ERJ6GEYJ150 | M.RESISTOR CH 1/10W 15 | 1 | |
| R808 | ERJ6RBD242 | M.RESISTOR CH 1/10W 2.4K | 1 | |
| R809 | ERJ6GEYG564 | M.RESISTOR CH 1/10W 560K | 1 | |
| R810 | ERJ6RBD104 | M.RESISTOR CH 1/10W 100K | 1 | |
| R811 | ERJ6GEYG105 | M.RESISTOR CH 1/10W 1M | 1 | |
| R815 | ERJ6GEYG102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R816 | ERJ6GEYG222 | M.RESISTOR CH 1/10W 2.2K | 1 | |
| R817 | ERJ6GEYF472 | M.RESISTOR CH 1/10W 4.7K | 1 | |
| R818 | ERJ6GEYG223 | M.RESISTOR CH 1/10W 22K | 1 | |
| R819 | ERJ8GEYJ275 | M.RESISTOR CH 1/8W 2.7M | 1 | |
| R820 | ERJ8GEYJ335 | M.RESISTOR CH 1/8W 3.3M | 1 | |
| R821 | ERJ6GEYG105 | M.RESISTOR CH 1/10W 1M | 1 | |
| R823 | ERJ6GEYJ120 | M.RESISTOR CH 1/10W 12 | 1 | |
| R829 | ERJ6ENF4222 | M.RESISTOR CH 1/10W 42.2K | 1 | |
| R833 | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R834 | ERJ6GEYG122 | M.RESISTOR CH 1/10W 1.2K | 1 | |
| R835 | ERJ6GEYG223 | M.RESISTOR CH 1/10W 22K | 1 | |
| R836 | ERJ6GEYG105 | M.RESISTOR CH 1/10W 1M | 1 | |
| R840 | ERJ8GEYJ106 | M.RESISTOR CH 1/8W 10M | 1 | |
| R841 | ERJ8GEYJ825 | M.RESISTOR CH 1/8W 8.2M | 1 | |
| R842 | ERJ8GEYJ106 | M.RESISTOR CH 1/8W 10M | 1 | |
| R843 | ERJ8GEYJ825 | M.RESISTOR CH 1/8W 8.2M | 1 | |
| R844 | ERJ3GEYJ270 | M.RESISTOR CH 1/16W 27 | 1 | |
| R845 | ERJ6GEYG221 | M.RESISTOR CH 1/10W 220 | 1 | |
| R850 | ERJ6RBD822 | M.RESISTOR CH 1/10W 8.2K | 1 | |
| R851 | ERJ6RBD392 | M.RESISTOR CH 1/10W 3.9K | 1 | |
| R852 | ERJ6GEYF822 | M.RESISTOR CH 1/10W 8.2K | 1 | |
| R853 | ERJ6GEYG103 | M.RESISTOR CH 1/10W 10K | 1 | |
| | | | | |
| S801 | VEE0C17 | WIRE CABLE | 1 | |
| | | | | |
| T801 | ECXC2802E | FLY BACK TRANSFORMER | 1 | |
| | | | | |
| VR801 | VRV0292B221 | VARIABLE RESISTOR | 1 | |
| VR803 | EVMLSGA00BV6 | TRIMMER POTENTIOMETERS | 1 | |
| VR804 | VRV0292B474 | VARIABLE RESISTOR | 1 | |
| | | | | |
| | | | | |
| ■ | VEP22276A | CCD FLEX. CARD C.B.A. | | (RTL) |
| | | | | |
| C292 | ECST1VX225Z | T.CAPACITOR CH 35V 2.2U | 1 | |
| C295 | ECUM1E104ZFN | C.CAPACITOR CH 25V 0.1U | 1 | |
| | | | | |
| D291 | MA153 | DIODE | 1 | |
| | | | | |
| PS291 | VJS3500C012 | CONNECTOR (FEMALE) 12P | 1 | |
| | | | | |
| Q291 | 2SC2295 | TRANSISTOR | 1 | |
| | | | | |
| R291 | ERJ6GEYG560 | M.RESISTOR CH 1/10W 56 | 1 | |
| R292 | ERJ6GEYG152 | M.RESISTOR CH 1/10W 1.5K | 1 | |
| R293 | ERJ6GEY0R00 | M.RESISTOR CH 1/10W 0 | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| | | MISCELLANEOUS | | |
| | VJB22276 | FLEX. CARD | 1 | |
| | | | | |
| | | | | |
| ■ | VEK8231 | LENS FLEX. CARD C.B.A. | | (RTL) |
| | | | | |
| | | MISCELLANEOUS | | |
| | 0N1004-R | PHOTO INTERRUPTER | 1 | |
| | | | | |
| | | | | |
| ■ | VEK8385 | MIC UNIT | | (RTL) |
| | | | | |
| C6801 | ECEA0JKS470 | E.CAPACITOR 6.3V 47U | 1 | |
| | | | | |
| D6801 | BR2202S-20B1 | DIODE | 1 | |
| D6802 | PH310 | DIODE | 1 | |
| D6803,04 | MA165VT | DIODE | 2 | |
| | | | | |
| FP6801 | VJS3654B012 | CONNECTOR (FEMALE) 12P | 1 | |
| | | | | |
| IC6801 | RPM6937-V4 | IC | 1 | |
| | | | | |
| P6802 | VJP3331B004 | CONNECTOR (MALE) 4P | 1 | |
| | | | | |
| W6801 | VWJ0121 | FLAT CARD CABLE | 1 | |
| | | | | |
| | | MISCELLANEOUS | | |
| | VGQ3206 | SENSOR HOLDER | 1 | |
| | VWJ12XW050LL | FLAT CARD CABLE | 1 | |

INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

| P.C.B. | FILM CODE |
|---|---|
| CAMERA/MAIN | HOKU00-23461 |
| EVF | HOKU00-28253 |
| CCD FLEXIBLE CARD | HOKU01-22276 |
| MIC UNIT | HOKU00-00Z48 |
| MF RING UNIT | HOKU00-00Z54 |

Order NO. VMD9807046S8

# Service Manual

Supplement

## Video Product

**Effective from : Mentioned below**

Model No:Mentioned below

### Subject : Improvement of Performance and Correction of Service manual

Please use this service manual together with the service manual for Order No.Mentioned below.

| | |
|---|---|
| **NV-RX61B,NV-RX66EG** | **VMD9803013C2** |
| **NV-RX505F** | **VMD9805030C3** |
| **NV-VX31B/VX33EG/EN/ENH** | **VMD9804027C8** |
| **NV-VX51B,VX55EG/EN/ENH/A** | **VMD9804027C8** |
| **NV-VX77A/EN/ENH** | **VMD9805031C3** |
| **NV-RX77EN** | **VMD9805032A3** |
| **NV-RX70EG/B/A/EN/EE** | **VMD9705004C8** |

(1).Running Change for improvement of Performance

***Interchangeability Code*** See the I/C column on the following Part Number list.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | Parts | Production | B | Parts | Production | C | Parts | Production | D | Parts | Production | E | Addition |
| | Original | Early | | Original | Early | | Original | Early | | Original | Early | F | Deletion |
| | New | Late | | New | Late | | New | Late | | New | Late | G | Other |

***Part Number***

| Ref. No. | Original Part No. | New Part No. | Part Name & Description | I/C | Remarks |
|---|---|---|---|---|---|
| C2005 | ECUX1H332KBV | ECUX1H222KBV | CAPACITOR | A | EXCEPT NV-RX70 |

(2).Corrction of Parts List

| Ref. No. | Parts No. | Original Description. | New Descripition. | Remaks |
|---|---|---|---|---|
| 660(6) | VQT7028 | Operation Instructions (English/German/ Franch/Spanish) | Operation Instructions (English/German/ Franch/Dutch) | NV-RX70 ONLY |
| 660(6) | VQT7029 | Operation Instructions (Italian/Dutch/Swedish Danish) | Operation Instructions (Italian/Spanish) | NV-RX70 ONLY |

⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Panasonic**

© 1998 Matsushita Electric Industrial Co., Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

Printed in Japan

Order NO. VMD9809050S8

# Service Manual

Supplement

## Video Product

**Effective from : Running Change**

Model No:Mentioned below

## Subject : Improvement of Performance

Please use this service manual together with the service manual for Order No.Mentioned below.

| | |
|---|---|
| **NV-RX11EG/B/EN/ENH/A/EU/EE** | VMD9801001C8 |
| **NV-RX21EN/EU** | |
| **NV-RX21B** | |
| **NV-RX15EG/B** | VMD9801004A2 |
| **NV-RX105F** | VMD9802010C2 |
| **NV-RX205F** | |
| **NV-VX22EG/B/A/EN** | VMD9803018A8 |
| **NV-VX21B** | |
| **NV-RX31B** | VMD9806035C8 |
| **NV-RX33EG/EN/ENH** | |
| **NV-RX61B** | VMD9803013C2 |
| **NV-RX66EG** | |
| **NV-RX77EN** | VMD9806032A3 |
| **NV-RX505F** | VMD9805030C2 |
| **NV-VX31B** | VMD9804027C8 |
| **NV-VX33EG/EN/ENH** | |
| **NV-VX51B** | VMD9804027C8 |
| **NV-VX55EG/EN/ENH/A** | |
| **NV-VX77A/EN/ENH** | VMD9805031A3 |

***Interchangeability Code*** See the I/C column on the following Part Number list.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parts | Production | | Parts | Production | | Parts | Production | | Parts | Production | E | Addition |
| A | Original | Early | B | Original | Early | C | Original | Early | D | Original | Early | F | Deletion |
| | New | Late | | New | Late | | New | Late | | New | Late | G | Other |

***Part Number***

| Ref. No. | Original Part No. | New Part No. | Part Name & Description | I/C | Remarks |
|---|---|---|---|---|---|
| IC701 | TB6526F | TB6526AF | IC | B | |
| IC702 | TB6526F | TB6526AF | IC | B | |

**⚠WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**Panasonic**

© 1998 Matsushita Electric Industrial Co., Ltd.
All rights reserved. Unauthorized copying and distribution is a violation of law.

Printed in Japan